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**Development Ideas of Gandhiji
and Amartya K. Sen**

Economy of Tiruchirappalli Region



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The Agrarian Irony

Shocking scams and scandals notwithstanding, the expected GDP growth rate of the economy at 8.5 percent in the current financial year (2010-11) is likely to exceed the performance of the last year by more than a percent. The CMIE projects a 5.8 percent growth rate in the agricultural sector; above 9 percent growth in both manufacturing and service sector. The IT sector is upbeat with business expansion requiring additional manpower; Cognizant, fourth of the IT majors proudly announces that its employee number also crossing the one lakh mark. The stock market is robust with the sensex hovering around the 20,000 points, despite ups and downs. The foreign exchange reserves are comfortable at \$295 billion dollars by the third week of December 2010 with a strong rupee easing on the import costs. A bright picture proving the resilience of the Economy, indeed.

It is certainly gratifying to note that there is a turnaround in agricultural output in India in the context of the FAO report which mentions a two percent decline in global cereal production in 2010. While the five year average of food grains production in the first half (ending 2004-05) of the decade was 199.20m tons, in the next half (ending 2009-10) it increased to 221.87m tons. There has also been significant output rise in cotton, maize, potato, onions and a big leap in milk production. But for the setback due to the monsoon downpour in many parts of the country, farm sector is to a considerable extent encouraged by higher yields leading to higher production besides higher relative prices and better price realization.

However, the true state of affairs is different and warrants adequate measures with a long term perspective in the context of the looming spectre of food insecurity. Obviously, the higher prices of agricultural commodities are due to increasing

purchasing power and higher growth rates, reflections of a growing economy; it is said that a temporary shortfall in output causes a tenfold price increase as in the case of the recent hike in onion prices. Defective stock management systems, substandard infrastructures, inability to control price volatility are problems which need urgent attention.

There is no second opinion over the imbalances in procurement, distribution and storage policy. Thus the immediate concern now relates to the management of the precious stocks, the end result of the hard toils of millions of Indian farmers.

As on December first week, the FCI holds 48 million tons of wheat & rice. 21m tons of those stocks are in open atmospheric godowns. With procurement of wheat in April and May, the stocks are likely to reach 65m tons by the summer of 2011.

Every year many million tons of wheat, rice, paddy, maize and other crops get damaged due to improper storage. There is widespread accusation that heaps of the produce are getting decayed in the godowns across the country. In a recent response to a Right to Information (RTI) petition, FCI informed that over one million tons of food grains were damaged in godowns during the past one decade. In the opinion of many analysts, the one million tons of food grains were enough to feed over one crore hungry people for more than a year. It is to be noted that the nation ranks 66th out of 88 in the Global Hunger Index, and 43.5 percent of children under five are suffering from malnutrition.

While the buffer norm is 21 million tons and the approximate carrying cost of cereals at Rs.3000/ton a year, the situation requires timely action. Export of food grains is considered as one viable option. Experts suggest export of wheat and non basmati rice as the world prices this year has gone from \$170 to \$330 /ton for wheat. Russia, the fourth-largest exporter of wheat in the world, is experiencing reduced supplies, as production has dropped due to drought. Russia, along with Kazakhstan and Uzbekistan,

has banned grain exports till December 2010 to ensure domestic supplies. This has boosted the international prices of wheat by around 50 per cent, making it an optimally profitable situation for India to facilitate export of the surplus. The suggestion is gaining ground in the wake of the inability of the government to clear the existing stock through the Public Distribution System (PDS) and lukewarm off take under the open market scheme. Export of even five million tons of wheat would mean money saved & earned rather than perpetually lost. There is need to reconsider the government ban on the export of wheat and non-basmati rice since 2003.

Kaushik Basu, Chief Economic Advisor to the Government is of the view that exporting surplus food grain, especially wheat, is a solution to the problem of lack of storage capacity. According to him, 'The issues illustrate a pervasive weakness that runs through India's foodgrain policy. In the name of helping the farmer and the consumer... we have ended up creating a policy framework that has not got high marks on either account'. Basu advocates the idea that India can go into swap deals with countries and sell grains in exchange for return sale after two-three years: the idea is, because you cannot store it here, you store it somewhere else'. Gulati, another expert is of the view that the money generated by exporting the current surplus can be earmarked for creating new storage capacities in the country.

Way back in 1978, Norman Borlaug, said that with its vast plains, India could become the 'food basket' of the world. Perhaps there is need for a revisit to the prophetic words of the Nobel laureate by our policy makers.

AET EXECUTIVE CHAIRMAN'S REMARKS

Rev. Dr Fr A G Leonard SJ
Sacred Heart College,
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With great hesitation, I remember distinctly, I was signing in the place of AET's Executive Chairman in the certificates to be distributed to the participants at the Annual Conference of the Association of the Economists of Tamil Nadu – XXIV held at MDT Hindu College, Tirunelveli two days prior to the Republic Day of India in the year 2004. Incidentally, it was the first Conference to be conducted in the absence of Rev. Fr M Sebastian SJ, the founder Chairman of our AET. He was not in the best of health. Much before any one could appraise him of the proceedings of the AET Annual Conference – XXIV, he passed away on January 26, 2004 at St Joseph's College, Tiruchirappalli. A few months prior to that conference, Rev. Fr M Sebastian SJ convened an extraordinary meeting at St Joseph's College, Tiruchirappalli, the Head-Quarters of the AET at which several prominent AET members were present. I too was there at that meeting as told by Fr M Sebastian SJ. *He was my teacher and HOD during my PG days and guide for my PhD.* I was then Principal of St Joseph's College.

My association with the AET was not deep and I must confess that my attendance at the AET Conferences especially in its second decade was not very regular although I must hasten to add that all along I had immensely appreciation and regard for the efforts of several stalwarts and well-wishers making the AET what it is today. Knowing that his health did not permit him to play a very active role in the activities of the AET, Fr M Sebastian SJ suggested at that meeting that I succeed him as the Executive Chairman of the AET. Seeing several eyebrows, *mine included*, raising, since by then it was floating in the air that my term as Principal was ending, Fr M Sebastian SJ was quick to calm our fears commenting that I, Fr A G Leonard SJ, would be his successor in the AET as its Executive Chairman and the Principal of St Joseph's College, Tiruchirappalli would be an ex-officio member of the AET Executive Committee. Thus, at the Tirunelveli Conference, I had my dual role to perform. In the ensuing year, the Department of Economics at St Joseph's College, Tiruchirappalli conducted the AET Annual Conference – XXV (Silver Jubilee Celebrations of the AET) and at this juncture, I register with respect that the staff members whole-heartedly stood

by me, then their ex-Principal. There lies the beauty of those associated with Economics. I witnessed similar vigour and enthusiasm from the Economics confreres during the five AET Annual Conferences conducted by the benevolence of colleges in Walajapet, Villupuram, Madurai, Coimbatore and Tiruchirappalli. Thus I realise that Economics stands for enthusiastic endeavours. I must record here with the sense of satisfaction and relief that *Sebastian Spirit* filled especially Dr K Malathi, Dr Ms Ponnammal Pandian, Dr C Muthuraja, Dr V Mohanasundaram and Dr K Elango and every one of us motivating all to contribute our mite to the progress of our AET.

Finding venue to conduct the Annual Conferences of the AET has not posed a problem so far. Just prior to the General Body Meeting during the Annual Conferences, every year atleast one college approaches the Executive Committee offering the venue for conducting the ensuing Conference. *We will see that the light of AET is held high*, each college seems to proclaim. You may be happy to note that for the AET Annual Conference – XXXII, much before the Executive Committee, a venue is offered. We are happy to note in recent years several member colleges have taken initiative seeking collaboration with our AET to conduct seminars on some meaningful themes. At this juncture, I request our members to respond to a suggestion by Dr R Rajendran, our AET President (2009-2010) that Executive Committee should meet more than once in a year to have a healthy discussion on issues creeping new. Incidentally the EC members are not blessed with the opportunity to witness the cultural programmes organised at the conference venue.

At every Annual Conference and also outside the conference, the AET officials are kept busy enrolling Life Members. As of January 1, 2011, we have 460 LIFE MEMBERS, reports Dr G Gnanasekaran, our ever-available and affectionate AET Treasurer. Through the Circular 2010/ 01, our ever-active and efficient Secretary of our AET Dr S M Suriya Kumar presents to us all some new features. There is the mention of the **Regd No 135/ 2000** of our **ASSOCIATION OF ECONOMISTS OF TAMIL NADU** and the Department of Economics, St Joseph's College, Tiruchirappalli – 620 002 as its Head Office.

His Circular has a reference to the AET adopting relevant strategies and the definite march to a mature understanding and clarification of the vision of the AET in keeping with the changing demands of the time. A lot more has to be done. Well, I leave to every member to offer valuable suggestions for our progress.

As we have conducted our AET Annual Conferences for 30 years uninterruptedly, I am emboldened to appeal to our senior AET members to present a fine write-up on THE ORIGIN AND GROWTH OF THE AET. As 30 years mark one generation, it is time that younger AET members,

belonging to the second generation should follow suit indicating future directions to the AET through another write-up. Both write-ups, I strongly feel should find a place in the ensuing issue of the *Peninsular Economist*, the official journal of the AET. The ensuing issue of our journal *Peninsular Economist* has to contain these two write-ups necessarily since our journal has now become registered and is assigned the **ISSN 0976-8270**. Permit me at this juncture that this recognition is entirely due to the concerted efforts of **Prof. R Rajendran** (now Dr RR), **Dr S M Suriya Kumar** and **Dr G Gnanasekaran**, besides some well-meaning AET collaborators including our office in-charge **Mr N Muthukumar**. Well, this recognition brings with it respect, risk and responsibility.

Today, many teachers and students express an ardent desire to have their articles published. Fr M Sebastian SJ would have rejoiced that his persistent call 'publish and prosper' is paid heed to. Our editors have always attempted to give due consideration to the various papers received after they are presented at our conferences. Their work can be considerably reduced if the concerned have a careful look at the conditions for the paper-presenters before the latter seek entry for their papers into publication in our journal. We request you, dear contributors, to present quality articles and help the Editorial Board of our Journal 'Peninsular Economist'. Incidentally, a suggestion that was mooted and I pass on to our GBM for consideration. *The suggestion is that the papers presented by the LIFE MEMBERS alone will be printed in full form while that of the others will be included in abstract form.*

There has not been much enthusiastic response to our sustained efforts in getting updated **AET Directory** containing relevant information of each AET member. Kindly cooperate.

We earnestly hope that Aditanar College, Tiruchendur, the venue for the **Association of Economists of Tamil Nadu Annual Conference – XXXI** during 8th and 9th of January, 2011 will surprise us with enchanting features enabling us to effect helpful changes in improving the image of our AET.

Respecting a popular suggestion, we are doing away with **Spot Admission**.

The Executive Committee profusely thanks the ever-willing and ever-loving senior AET members and appreciates their ready availability to serve as Chair-Persons and Rapporteurs at the various sessions even when they are asked at the last minute. There is nobility in them all. With such members, we are definitely assured of the growth of our AET. In view of the shortness of time,

I suggest to the local secretary to please hand over the certificate for paper presentation at the end of the session concerned.

The first theme of the ensuing conference is **Natural Resources Management- Land and Water**. We living in a developing country are quite conversant with the need for the resources for arriving at development. We are not unfamiliar that both natural and human resources are required for bringing about development. While the natural resources are passive in character, they require active human resources to cause development. While the former is passive, the latter is active. Although there are countries that have witnessed development without adequate natural resources, experience of the countries is that there should be adequate and appropriate natural resources available within the country. Besides their availability, their usability is also of paramount importance. And then there is required the technical skill to convert the natural resources to consumer and capital goods. But in the absence of development of human resources, the natural resources become ineffective.

We can define natural resources as occurring naturally within environments that exist relatively undisturbed by mankind, in a natural form. Although natural resources are available from outside our planet earth, we take for consideration the two well-known natural resources land and water available in earth. Both are essential for our survival. Unlike Biotic resources that are obtained from the biosphere, such as forests and their products, animals, birds and their products, fish and other marine organisms and Mineral fuels such as coal and petroleum getting formed from decayed organic matter, land and water are abiotic resources.

Experts are increasingly surveying Land and Water and are determining their quantity and quality before they are put into use by human beings.

While it can be said about resources like sunlight, air, wind, etc., as being continuously available and their quantity is not affected by human consumption, it cannot be said about land and water. There are efforts by human beings to replenish natural resources but not always met with desired results.

What were once free goods, have today become economic goods. Natural resource management is interrelated with the concept of sustainable development, a principle that forms a basis for land management and environmental governance throughout the world.

In India we follow a nine-fold classification of the land. Having exercised a cursory glance thorough the percentage figures over the past few years, we can observe how there occurs shrinkage of arable land and land set apart for grazing cattle. The large and small-holdings could point to the increasing income and wealth inequality prevalent in our India.

I suggest that besides the three themes which we take up for consideration at the Annual Conferences, we have one more theme: Tamil Nadu Budget: Proposals or Implementation.

May I suggest that the host colleges in future undertake to put up exhibits on the contribution of one international economist and another Indian/ Tamil Nadu economist?

I am perfectly happy with the procedures adopted for the grant of the **Lifetime Achievement Award**, the **Senior Economist Award** and the **Young Economist Award** and **DR MOHANASUNDARAM BEST PAPER PRESENTATION AWARDS**. My suggestion is that the achievements of the awardees could be inserted in our journal, besides the citation presented. Similarly, **REV. DR M SEBASTIAN STANISLAUS MEMORIAL LECTURE** delivered should find a place in our journal. **One of ours** may continue to deliver that lecture.

The Minutes of the **AET GENERAL BODY MEETINGS** and the **Executive Committee Meetings** may continue to be presented.

I request all the members, especially the awardees and the officials to rope in atleast one **LIFE MEMBER** for the AET every year.

I request all attending the conference to get themselves registered *prior* to the Inaugural Session and to wear the badge for easy identification by all concerned. *It is heartening to observe that many senior citizens among us set a fine example in this practice!* I think it will be a healthy practice the college coming forward to conduct the conference should also suggest the Conference Themes and Topics. With our insisting on the paper-presenters to submit their production in a CD, it will not be an insurmountable task for collecting copies of all the CDs and presenting to the AET Secretary the materials in a book format. Those of the Autonomous Colleges among us may pick up our materials serving as an excellent source-book for some optional course that could be introduced.

I am now in a different capacity: Treasurer in Sacred Heart College, Shembaganur, Kodaikanal – 624 104 (04542- 241 201). Unlike my past residence (Chennai), my present abode goes without electricity at the most needed time.

While I was in Chennai, I have managed to collect most of the volumes of '*Peninsular Economist*' available with the well-wishers. The materials are available in a CD with our AET Secretary. The cost of the CD copy is Rs 50. I will be happy if you could please some missing numbers there.

I informed our AET Secretary that I would like to present a brief note on each of the themes for the AET Annual Conference – XXXI.

As land and water quantity cannot be increased immediately, considerable attention could be paid to improve their quality to fulfill the needs of the ever-growing population. There lies the need for qualitatively superior natural resource managers.

The second theme of the ensuing conference is **Mahatma Gandhi National Rural Employment Guarantee Programme**. Needless to say, it is a government-sponsored nation-wide poverty eradication programme. In a welfare-state, it is not surprising that the government comes forward to alleviate the sufferings of the people living especially in the rural areas and in poverty. It is a welcome measure. Some meaningful observations have been made on the functioning of the programme. While on the one hand the money meant for the rural less-moneyed is not reaching the target groups, the beneficiaries are not to a large extent getting engaged in wholesome activities and when available not till the completion of the task. There has occurred a shift of workers earning hitherto a low wage from the works traditionally engaged in to the work initiated by the programme. It is unfortunate that the extra money is not utilised to improve the status of the families rolling in abject poverty. It is required that corrective measures should become an effective component part of this employment generation programme. In a country practising a mixed economic system, the private sector cannot remain as mere spectators in this otherwise laudable programme. An ongoing assessment of the works would certainly bring credit to this programme. Those regions that excel in asset-creation, sustainable development and adopting income generation measures should be suitably recognised.

The third theme is the familiar regional economy. This conference focuses on the economy of three districts: **Tirunelveli, Tuticorin and Kanniya Kumari**. Something beautiful should be said about the quality of the human population. With the literacy level ever increasing and with enterprising communities existing, there is enormous scope for economic development. The presence of the sea-faring people and the tree-climbers to be in touch with the natural resources brings joy, courage and confidence to all concerned. It is a pity that the southern part of Tamil Nadu is not as industrialised as the northern part.

Dear Friends, as we gather at the beginning of yet another calendar year, I would like to greet you all and through you your family members, the Chairman, officials and members of this illustrious college God's Choicest Blessings, Good Health and progress this year and in the years to come.

Presidential Address

R. RAJENDRAN

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Market economy is considered as an efficient system to attain economic growth in a quicker span of time. The achievements of the Western European Countries are on the pattern of market economy. Eventhough market economy accelerates economic growth it has an inherent drawback viz. inequality. Inequality and the struggle between haves and have-nots brought number of revolutions in modern world. The failure of market economy was witnessed during the Great Depression of 1930's. The automatic system with price mechanism expected external intervention to get out of Great Depression.

The progressive thinkers were dreaming for an alternative system. 1917 October Revolution and economic planning of USSR was an eye opener. What was achieved by the capitalist countries in three and half centuries was achieved by USSR. Many countries which got freedom in the first half of the twentieth century followed socialism as an alternative system for economic development. The success of USSR was remarkable in short period, say three and half decades. The disintegration of USSR in 1980's was a witness for government failure.

Many East European Countries which followed Communism switched over from government to market. The last quarter of the twentieth century witnessed a glaring change in favour of liberalization, privatization and globalization in the international arena. The economic institutions like IBRD, IMF and WTO contributed to a larger extent to the New International Economic Order.

at the XXX Annual Conference of Association of Economists of Tamil Nadu held at National College, Tiruchirapalli on 9th and 10th January 2010.

In the case of India our leaders considering the meritorious aspect of market economy and communism introduced mixed economic pattern under socialistic pattern of society. The main aim of socialistic pattern of society and coexistence of public sector and private sector is for achieving equity and social justice. The economic planning which was considered a panacea for all economic evils had not brought expected changes in Indian Economy. Poverty, unemployment, malnutrition, high mortality rate, low standard of living existed even after four decades of planning. Economic Growth was not sufficient. Political Independence became meaningless when poverty and unemployment were high. The public sector which was considered an engine of economic growth under the mixed economy proved inefficient and loss incurring in most of the cases.

Poverty, unemployment, low percapita income, slow process of growth, adverse balance of payments compelled us to switch over to the present market economy under the new era of LPG. Since 1991 the overall growth of Indian economy is around 8 per cent. The contribution of service sector is highly remarkable. The growth rate of GDP by service sector is 8.86 per cent. Following the service sector, manufacturing sector is also playing a very vital role in the growth rate. The growth rate of GDP by manufacturing sector is 8.46 per cent. The influx of FDI and FH make Indian Economy comfortable so far as the foreign exchange reserve is concerned. The total foreign investment touches US\$ 1,10,350 million. Out of the total foreign investment FDI gives 45.9 per cent and FH 54.1 per cent. Since India is a growing economy with the growth of GDP and percapita income, the demand for goods is ever increasing. To encash the situation number of foreign entrepreneurs are interested in establishing their concerns in India. But most of the MNCs are using capital intensive technique. Hence present Indian

economic growth is more or less a jobless growth.

Nearly two decades of present economic situation has not reduced poverty and unemployment significantly. On the otherside liberalization and privatization make the rich richer and India is a country with a sizeable number of billionaires. There are few persons occupying first few positions of International rich persons. If this position continues inequality will widen and social justice will be a big question. Eventhough Indian Economy

is a part of the globalised world, it is the biggest democracy with long cultural heritage. Anything can be set right and the economy can march towards equity and social justice.

Upto 1991, the government was a promoter, promoting public sector for economic growth. Now the role is shifted to regulating activity. The prime function of the government is to regulate and attain economic prosperity. I consider the following area where the State has to concentrate to attain equity and social justice. The world has witnessed the consequences of sectoral disparity in the growth process. American Civil War was due to the poor growth in agrarian South America and rapid growth in industrialized North America. What had happened in our neighbouring country Pakistan? The present Bangladesh, an agrarian region was experiencing poor agricultural growth and the West Pakistan was experiencing a reasonable growth in manufacturing. The lopsided growth was the reason for present situation.

After 1991, Primary Sector in India is not getting adequate care. The growth rate was expected to be 4 per cent per annum. But the reality is only half of the target. Agriculture needs public investment and government patronage in infrastructure, research and development. But the recent data shows that agriculture is not getting adequate importance as in the early plan periods. The result is increase in rural poverty and unemployment. India attained food self sufficiency 35 years ago, yet about 35 per cent of its population remains food insecure. Over 200 million children, women and men go to bed now partially hungry. India will be the world's populous country of more than 1.4 billion people by the mid-twenty first century. In this context, agriculture and food security are the most important concerns of the 21st century.

The price policy for agricultural product is not congenial to the farm sector. Hence terms of trade is unfavourable to the farm sector. The recent study by NSSO has given an alarming figure, that is 40 per cent of the agriculturists are ready to quit agriculture because it has become uneconomic. The consequent result is stagnation in agricultural production and productivity, shortage of foodgrains and rising price of foodgrains. To-day both production and productivity in most crops are either stagnant or in decline. At the global level a poor harvest coupled with rising demand has led to an overall increase in

food prices. The country which was self sufficient for nearly four decades is expecting foodgrains from other countries. India has to import foodgrains at a higher rate due to increase in price. The technology that was used in the first Green Revolution has become obsolete and there is a need for second Green Revolution with appropriate new technologies. This is the prime and foremost necessity to attain equity and social justice.

According to Food and Agriculture Organisation of United Nations, one fourth of the World's undernourished population live in India. About 41 per cent of the world's underweight children call India as their home. In India, 47 per cent of children under 5 years old are underweight, 45 per cent are stunted and 16 per cent have malnutrition. Such severity of malnutrition can only be observed in famine prone countries where acute food insecurity is extreme and frequent. Food security depends not only on production but also on policies and institutions that translate production into food availability, access and utilization by the population. India's efforts in achieving food security for all Indians remain unimpressive. India is the only Asian country other than Bangladesh and Yemen to be in the top 25 of 97 hunger affected countries in the world. The government has to concentrate in food security.

Population which was considered as a curse in yesteryears has become Human Capital for economic prosperity. Our neighbour China is channalising the Human Capital formation in a systematic and useful manner. In the case of India sizeable portion of our GDP is spent for human capital formation via primary, secondary and higher education channels. When we see the figures it is attractive in quantwise. But the quality of education to the international requirement is thoroughly missing. The IITs, IIMs and premier institutions, recently few self funded institutions are trying to enhance the quality to the international standard. But most of the public funded institutions at all levels lagging behind. The Vice-Chairman of Kerala State Council for Higher Education (Mr. Panickar) worried if these institutions are not enhancing their quality there will be an "academic slum" in the country. Foreign institutions are also entered and our students in large number going abroad in search of quality higher education. Enhancing the quality of higher education at all level is a foremost necessity, otherwise educated unemployment will increase and inequality in income.

A.K. Sen, the Indian Nobel Laureate is stressing the need for improving primary health for better HDI. India ranks 128 position, even though we are one among the top 20 industrialized countries of the world. In India infant mortality rate is more, the maternal mortality is also high and there are higher incidences of epidemics. In 1990 the infant mortality rate was 83 and 54 in 2007. It is very less in Thailand, China and Sri Lanka. The maternal mortality ratio is 254, but the average MMR is only 8 in industrialized countries. The consequent result is low labour productivity.

Privatisation of health care has come to stay. Big corporate hospitals are functioning in big cities. Medical tourism is also a recent phenomena in India. Health care for poor, needy rural masses is a most urgent thing to attain social justice. Vast numbers of people cannot avail of services even when they are available, due to problems of knowledge and access. Globalisation is considered as a boon for capital deficient developing countries. The past history has shown that the industries started in poor countries by the rich countries are not environmentally suitable for the country and the people. Most of the polluting industries in the poor countries are started by rich countries. By starting, these industries in poor countries rich countries are preserving their environment at the cost of poor countries. The foremost duty of the centre and state governments is to prevent such establishments.

Economic History has taught us 'institutions' are essential for economic development. Hitherto developed countries attained their economic development by proper institutions and human capital. We are no way inferior to any country and we have all potential to become a developed country in near future. Efficient administration, transparent process, good bureaucracy and the participation of every Indian in the economic growth process will attain economic growth with equity and social justice.

SOCIAL CONSCIOUSNESS IS AN EDUCATIONAL RESPONSIBILITY

Fr. P. P. George SDB

"Throughout history and in virtually every part of the earth men have lived and multiplied, and have created some form of culture. Always and everywhere they found their means of subsistence and something to spare. Civilizations have been built up, have flourished, and, in most cases, have declined and perished. This is not the place to discuss why they have perished; but we can say: there must have been some failure of resources. In most instances new civilization have arisen, on the same ground, which would be quiet incomprehensible if it had been simply the material resources that had given out before. How could such resources have reconstituted themselves"?

"All history –as well as all current experience–points to the fact that it is man, not nature, who provides the primary resources: that the key factor of all economic development comes out of the mind of man. Suddenly there is an outburst of daring, initiative, invention, constructive activity, not in one field alone, but in many fields all at once. No one able to say where it came from in the first place; but we can see how it maintains and even strengthens itself: through various kinds of schools, in other words, through education. In a very real sense, therefore, we can say that education is the most vital of all resources", [*Small Is Beautiful*, E.F. Schumacher]

For this, there are four essential conditions. First, there must be motivation; second, there must be some know –how; third, there must be some capital; and fourth, there must be an outlet: additional output requires additional markets.

Far as the motivation is concerned, what is education for? Is education to be a "passport to privilege" or is it something which people take upon themselves almost like a monastic vow.

As a Christian, I may be permitted to quote from the Bible, St. Luke Ch: 12, 48: "Much will be expected of the man to whom much has been given. More will be asked of him because he was entrusted with more." It is, you might well say, an elementary matter of justice.

Rev.Dr.M.Sebastian Stanislaus Memorial Lecture - V, delivered on 09.01.2010 at National College,Tiruchirapalli.

If this ideology does not prevail, if it is taken for granted that education is a passport to privilege then the content of education will not primarily something to serve the people, but something to serve ourselves, the educated. The privileged minority will wish to be educated in a manner that sets them apart and will inevitably learn and teach the wrong things, that is to say, things that do set them apart, with the contempt for manual labour, a contempt for primary education, a contempt for rural life, etc. etc. Unless virtually all educated people see themselves as servants of their country – and that means after all are servants of the common people – there cannot possibly be enough leadership and enough communication of know how.

Communitization of Education

Communitization of education means making the Community responsible for the education of its members, as well as the beneficiary of the education its members receive.

Education is meant to be a means of development both for the individual and the community. Unfortunately it is often noticed that while the individual is developed, the community fails to receive any substantial benefit from the education imparted to the individuals. Because of this, the community does not feel motivated to support education. Hence, the challenge before us is to ensure the integrated development of the entire community.

If the community is to be developed and not just the individuals, our concern for education should go beyond running schools alone. Hence we need to think of a variety of community-based Programmes, including adult literacy, non-formal education, etc. We also need to help our students reflect on the needs of the community. It was observed that our Education often uproots the individual from his/her culture and social setup. On completion of their education, the students are often unwilling to go back to their communities. This makes us realize that we need to prepare our students to become good social and political leaders who work for the upliftment of their own communities.

*Education often lays stress only on the rights of the individual but fails to emphasize his/her duties, especially towards society. Hence the need to develop the social consciousness of students who are part of society and have the obligation to give back to society what they have received. They should be made to realize that **a good education is not only a passport to success but also an opportunity to serve society.** Organizing*

Programmes of "Community Service" is a practical means of furthering social commitment. In this context of communitization of education we should bear in mind that the UNSECO has declared 2005-2014 as the "*Decade of Education for Sustainable Development*". Communitization of education in fact stresses the need for an education that promotes the sustainable development of the entire community.

In India the imparting of education is considered the greatest gift - '*Vidyadanam mahadanam*', the one who imparts education, *guru* is respected as God. The disciple should touch the feet of the guru before he touches God's feet. The Indian society has elevated the educator and educational institutions to divine heights, "*Guru Brahma, Guru Vishnu, Guru Devo Maheswara*".

*Learning is the true imperishable riches,
All other things are not riches (Thirukkural, 400).*

However, the distribution of these riches has been a cause for concern through the ages including the present one.

Myron Weiner echoes the same view when he says that, "despite impressive official rhetoric in favour of universal literacy there is no political will to make this goal come true. There is amazing apathy and indifference in government officials, social activists, trade unionists, social researchers, religious leaders, party workers, educationists and even parents. In many parts of the world religious organizations played a big role in the diffusion of mass education. It did not happen in India. In some countries, secular ideologies stood for a system of national education favouring social equality. In India, on the contrary, education has been largely an instrument of differentiation by separating children according to social class" (*The Child and the State in India*).

Challenge

Faced with over 350 million people in our country who are illiterate, universalization of elementary education is indeed a major challenge. Naturally, it is the marginalized that are often denied rightful access to education. Hence, making quality education accessible to the marginalized is a crucial issue that we have to respond to. The marginalized include both the economically and socially marginalized. In our Indian context, it would include the poor, Dalits, tribals, women in general, rural women in particular, slum dwellers, child labourers, unorganized workers, etc. The poor deserve our educational services more than the rich. They need to be educated to take up the challenge of hard mental work,

becoming independent and to be ambitious about their life and future. We have to be empathetic of their non-conducive academic environment and work out means and strategies to enhance their self-image as well as performance.

Conclusion

Our vision of Education must include the recommendation of Mahatma Gandhi. He dreamt of an India in which every individual discovers and realizes his or her talent and potential by working with others towards restructuring India and the world which continue to be characterized by conflicts within and outside society.

- Social consciousness is an educational responsibility. What do you propose that we should do to make our students realize that a good education is not only a passport to success but also an opportunity to serve society? How far have our Alumni become partners in realizing our vision of education?
- The MHRD's 2004 data show that only 11 per cent of students enrolled in class I pass a Public Examination. And more than 80 per cent who fail in a Public Examination fail in Mathematics and Science. What measures do you propose to remedy such a situation?

ECONOMIC GOVERNANCE

Dr. V.LOGANATHAN

Hon'ble Minister of State for Finance, Government of India Thiru S.S.Palanimanickam, Dr.M.Ponnaivaikko, Vice-Chancellor, Bharathidasan University, Father Leonard, Chairman AET, Prof. Rajendran, President AET, Shri K. Raghunathan, Secretary, National College Council, Dr.K.Anbarasu, Principal National College, Prof. Prabhu, Head of the Department of Economics , Conference Secretary Prof. Elango, Secretary AET Dr. Suriyakumar, Treasurer, Dr. Kumar, EC members and members of the organizing committee, members of Faculty, special invitees, delegates and my young friends.

At the outset, I would like to thank the organizers of this conference, especially Dr.Suriyakumar for providing me an opportunity to share a few thoughts with you by way of keynote address on *Economic Governance*.

First, I would like to pay my homage to Fr.Sebastian, who was instrumental in founding this Association. It was his vision, silent and sustained efforts that helped in the growth of this Association on sound lines. This Forum helped many young economists to shed their stage fears and to participate in national conferences with ease. I am happy that Fr.Leonard is carrying the torch in the same manner with a small band of economists devoted to the development of the Association. Let me reveal to you a less known fact. I was one of the secretaries of the Association during its formative stage when Dr.G.Palani Periasamy was its President at that time.

And now to the topic. After briefly dealing with the concept of economic governance, I shall discuss the contribution of 2009 Nobel Laureates Elinor Ostrom and Oliver E Williamson in this area. The former has been awarded the prize "for her analysis of economic governance, especially the commons" and the latter "for his analysis of economic governance, especially the boundaries of the firm". Both the laureates explain how non-market institutions like natural resources managed by common property and firms, exist and work. In a lighter vein, we may say that the concept of governance has a kind of

* Keynote Address delivered at the XXX Annual Conference of the Association of Economists of Tamil Nadu on January 9, 2010 at the National College, Trichy – 1.

assuring vagueness. The famous stock reply "*parkkalam*" of paramount leader late Kamaraj while he was Chief Minister is a classic case in point. But "Governance is the sum of many ways individuals and institutions, public and private, manage their common affairs. It is a continuous process through which conflicting or diverse interests may be accommodated and cooperative action be taken. It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions will either have agreed to or perceive to be in their interests" (Commission on Global Governance). Let me cite an example. Recently, Nobel Laureate our Amartya Sen, while taking stock of the performance of the Indian economy posed the question, "How is India doing?" After expressing thorough satisfaction with the functioning of democracy in the nation, that too, not because of the intelligentsia but because of the common man, faulted those in governance for failure on the fronts of basic education (he means primary education), primary health care and land reforms. By "those in governance" he does not mean only those sitting in the Treasury benches in the Parliament, but includes those M.Ps sitting in the Opposition benches as well.

Williamson defines economics of governance as 'an effort to implement the "study of good order and workable arrangements" Good order includes both spontaneous order in the market and intentional order of a "conscious, deliberate purposeful kind". Workable arrangements are feasible modes of organization, all of which are flawed in comparison with a hypothetical ideal.

Elinor Ostrom

Elinor Ostrom is the first woman to get a Nobel Prize in Economics in the last forty years. Her work relates mainly to the management of common property by common ownership. And she has found that common ownership can be more effective than other forms of governance of commons. She does not say that it is a panacea; her findings reveal that it is much more effective than our common understanding.

"The word *Commons* originally denoted pastureland treated as a common resource, where individual herders were free to graze their sheep or cattle. The land can support a limited number of grazing animals. The temptation to graze more than one's share is a rational strategy for an individual herder. But if all succumb to the same temptation, the grass ceases to grow and the value of the pasture to everybody disappears".

Nowadays, the "commons" is used as a general term for shared resources in which each shareholder has an equal interest. In the information commons, we study

issues relating to public knowledge, the public domain, open science and the free exchange of ideas. All these issues are at the core of a direct democracy.

Common-pool resources (CPRs) are natural or human – made resources where one person's use subtracts from another person's use, but difficult and costly, to exclude other uses outside the group from using the resource. In the CPRs, a lot of research has been done in the areas of fisheries, forests, grazing systems, wild life, water resources, irrigation systems, agriculture, land tenure and use, social organization theory (social dilemmas, game theory, experimental economics etc.) and global commons (climate change, air pollution, transboundary disputes, etc.) but CPR's can also include the broadcast spectrum.

Elinor Ostrom is basically a political scientist. But she considers her work to be political economy or the study of social dilemmas. Rather, her work is interdisciplinary covering Law, History, Economics, Political Science and Sociology. Her analysis is based on rich empirical evidence and laboratory experiments based on Game Theory and it provides practical guidance for policy.

We begin to study the Game Theory with the example of Prisoner's Dilemma. People are trapped by the Prisoner's Dilemma only if they treat themselves as prisoners by passively accepting the suboptimum strategy that locks them into. But if they try to work out a contract with the other players, or find the ones most likely to cooperate, or agree on punishing cheaters, or artificially change the incentive ratios, *they can create an institution* for collective action that benefits them all. This is one of the strategies (changing the rules of the game) for dealing with social dilemmas. Ostrom looks at some of the observed institutions as equilibrium outcomes of repeated games.

Social dilemmas act as obstacles on the path to creating institutions for collective action. These dilemmas must be overcome if institutions are to succeed or exist at all. *Lack of information* about the system can be an obstacle to agreement among individuals who make up the system. Another obstacle, *free-riding*, creates the second order social dilemma concerning who will bear the cost of policing the rules once they are agreed upon. Social dilemmas can be solved through institutions for collective action that are built by overcoming known obstacles.

Ostrom tells that the arc of civilization for the past 8000 years evolved by changing the rules of the game to turn zero-sum games into non-zero sum games. By examining

legal records and public documents, she found that in many different cultures all over the world, some groups would find ways to overcome the obstacles that defeated others – by creating contracts, agreements, incentives, constitutions, signals, media to enable cooperation for mutual benefit.

The main issues in common pool resources are: whenever a group of people depend on resource that everybody uses but nobody owns, and where one person's use affects another person's ability to use the resource, either the population fails to provide the resource, overcomes and/ or fails to replenish it, or they construct an institution for undertaking and managing collective action. As already mentioned, the common pool resources can be a fishery, a grazing ground, the Internet, the electromagnetic spectrum, a park, the air, and scientific knowledge. The institution can be a body of informal norms which are passed from one generation to another or a body of formal written laws that are enforced by state agencies, or a market place that treats the resource as a private property or a mixture of these forms. In the real world of fishing grounds and wireless competition, CPR institutions that succeed are those that survive, and that fail sometimes cause the resource to disappear (e.g., salmon in the Pacific Northwest).

Elinor Ostrom challenged the accepted wisdom about institutions for collective action by her careful inductive examination of empirical studies of common pool resource management, and her insistence on interdisciplinary analysis.

She studied a number of small to medium groups that have taken on the responsibility for organizing resource governance. For example, she studied several hundred irrigation systems in Nepal. Her finding is that farmer-managed irrigation systems are more effective in terms of getting water to the tail end, higher productivity, lower cost, than the fancy irrigation systems built with the help of the Asian Development Bank, World Bank, USAID, etc. The locally managed irrigation systems with small and primitive dams built from stone, mud and trees have successfully allocated water between users for a long time whereas many of the modern dams of concrete and steel built with foreign aid, despite a flawless engineering have ended in failure. The reason is that the presence of durable dams has severed the ties between head – end and tail-end users. Since the dams are durable, there is little need for cooperation among users in maintaining the dams. Therefore, head-end users can extract a disproportionate share of the water without fearing the loss of tail-end maintenance labour. Ultimately, the total crop yield is higher around the primitive dams than around the modern dams. This is a classic case of failed modernization.

There is another example relating to failed collectivization and privatization. It refers to the management of grasslands in the interior of Asia. Scientists have studied satellite images of Mongolia and neighbouring areas in China and Russia, where livestock has been feeding on large grassland areas for centuries. Historically the region was dominated by nomads, who moved their herds on a seasonal basis. In Mongolia, the traditions were largely intact in the mid-1990s, while neighbouring areas in China and Russia – with closely similar initial conditions – had been exposed to radically different governance regimes. There, central government imposed state-owned agricultural collectives, where most users settled permanently. As a result, the land was heavily degraded in China and Russia.

In the early 1980s, in an attempt to reverse the degradation, China dissolved the people's communes and privatized much of the grassland of Inner Mongolia. Individual households gained ownership of specific plots of land. Again, as in the case of the collectives, this policy encouraged permanent settlement rather than pastoral wandering, with further land degradation as a result. As satellite images clearly reveal, both socialism and privatization are associated with worse long-term outcomes than those observed in traditional group – based governance.

The above mentioned failures refer to economically poor regions of the world. But the lessons are much more far-reaching. Ostrom's first study concerned the management of ground water in parts of California and highlighted the role of users in creating workable institutions.

One thing, we must note here. She doesn't simply say "Oh, well, just leave it to the people, they will always organize". There are many settings that discourage self-organization.

The lesson is not that user management is always preferable to all other solutions. There are many cases in which privatization or public regulation yield better outcomes than user management. For example, in the 1930s, failure to privatize oil pools in Texas caused massive waste. Rather, the main lesson is that common property is often managed on the basis of rules and procedures that have evolved over long periods of times. As a result, they are more adequate and subtle than outsiders have tended to realize. Things like village sabhas during the Chola period and *Oorkattupadu* can also be cited as examples.

Besides demonstrating that self-governance can be feasible and successful, Ostrom has elucidated the key features of successful governance. Active participation of users in creating and enforcing rules is the key to successful governance. Rules that are imposed from the outside or unilaterally dictated by powerful insiders are more likely to be violated. Similarly, monitoring and enforcement work better when conducted by insiders than by outsiders. These principles radically differ from the common view that monitoring and sanctioning are the responsibility of the state and should be conducted by public employees.

Ostrom extracted from the cases of successful CPR management, the following *design principles*:

1. Group boundaries are clearly defined.
2. Rules governing the use of collective goods are well matched to local needs and conditions.
3. Most individuals affected by these rules can participate in modifying the rules.
4. The rights of community members to devise their own rules are respected by external authorities.
5. A system for monitoring member's behaviour exists; the community members themselves undertake this monitoring.
6. A graduated system of sanction is used.
7. Community members have access to low-cost conflict resolution mechanisms; and
8. For CPRs that are parts of larger system: appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.

Conclusion

Ostrom argued forcefully that neither direct intervention by the state nor total privatization is necessary for people to evolve successful institutions. Of course, she agrees that state-provided courts lower the costs of creating the institutions and the market value of well-managed CPRs provides strong incentive to create, agree and maintain such arrangements.

It is a moot point whether we can gain better insights of our water distribution issues such as Cauvery water dispute, Mullaiperiyar dam, construction of check dam across Palar river, Hogenakkal drinking water project, the working of Panchayati Raj institutions in India and Self-Help groups, by appealing to the research findings of Ostrom. She can even be invited as a consultant by the central and state governments.

Oliver E Williamson

Oliver Williamson has been awarded the Nobel Prize "for his analysis of economic governance, especially the boundaries of the firm". His work is an interdisciplinary effort to draw economics and organization theory together, to try to understand the boundaries of the firm and a whole set of practices that firms engage in, and more generally to understand complex economic organizations, of both private and public sector kinds. It analyses why firms can accomplish some transactions better than the markets can accomplish them. It also appeals to aspects of the law, mainly contract law. It has a lot of public policy ramifications for antitrust and regulations. A plus point about his work is that it provides for empirical testing of his theories. Economics of governance is influential in significant measure because it does speak to the real world phenomena and invites empirical testing and much of it has been corroborated. One of the recommendations that flows from his work for public policy is that "all feasible forms of organization are flawed in comparison with a hypothetical ideal and that we need to understand the trade – offs that are going on, the factors that are responsible for using one form of the governance rather than another, the strengths and weaknesses that are associated with each of them, and to fashion policy, with respect to anti-trust. It relates to corporate governance, as well. It adopts a different orientation than a standard one which looks at the firm and market organization in significant measure from a technological point of view. But Williamson looks at firm and market organization from a contractual point of view. That is, he looks at the theory of firm as governance structure through the lens of contract.

In contrast with the orthodox lens of choice (prices and output, supply and demand) the economics of governance is a lens of contract construction, broadly in the spirit of Buchanan's observation that "mutuality of advantage from voluntary exchange ... is the most fundamental of all understandings in economics".

The economics of governance is basically an exercise in bilateral private ordering. It means that immediate parties to an exchange are actively involved in the provision of

good order and workable arrangements. As against simple market exchange, governance is predominantly concerned with *ongoing contractual relations for which continuity of the relationship is a source of value*.

The four conceptual cornerstones out of which the economics of governance works are governance, transaction costs, adaptation and interdisciplinary social science.

J.R.Commons, one of the leaders of the institutional school was interested in "going concerns". The orthodox (classical) economics was preoccupied with simple market exchange and resource allocation paradigm. But Commons observed that the *continuity* of exchange relationship was important and reformulated the problem of economic organization as follows: "*the ultimate unit of activity ... must contain in itself the three principles of conflict, mutuality, and order. This unit is a transaction* (Commons, 1932, p4). And governance is the means by which to infuse order, thereby to mitigate conflict and realize mutual gains.

Ronald Coase (1937) in his article on "The Nature of the Firm" noted that the standard assumption that the transaction costs were zero presented neoclassical economics with a logical lapse. Sometimes, we glibly talk of market failure. Market failure is not absolute. Transaction cost can impede and sometimes and in particular cases completely block the formation of markets (Arrow, 1969). Arrow's remarks about vertical integration are especially pertinent: "An incentive for vertical integration is replacement of the costs of buying and selling on the market by the costs of intrafirm transfers; *the existence of vertical integration may suggest that the costs of operating competitive markets are not zero, as is usually assumed by theoretical analysis* (1969, p48).

Adaptation is the central problem of economic organization. While Hayek considered the price system as a mechanism for communicating information, Chester Barnard thought that consciously coordinated adaptations were accomplished through the use of management or administration within the firm. So, to Hayek's "marvel of the market", Barnard added the "marvel of hierarchy".

Interdisciplinary social science is the last of the four cornerstones associated with economics of governance. As noted already, organization theory and aspects of the law (especially contract law) bear importantly on economics of governance.

It is a mistake to confuse the neoclassical theory of the firm with its real-world namesake. The chief mission of neoclassical economics is to understand how the price system coordinates the use of the resources, not the inner workings of real firms (Harold Demsetz, 1983, p 37).

There is a lot of confusion in the regulatory area. The main reason is regulatory issues are treated in a one-sided way. There is an extensive literature on market failure but there is no mention of, much less a corresponding literature on regulatory failure (Coase, 1964). Taken together, antitrust and regulatory policies toward business were careening out of control.

By way of digression, I may say that the recent global financial crisis, in way is a case of regulatory failure.

Oscar Lange (1938, p.109) described bureaucratization as "the real danger of socialism".

In economics of governance, we are not interested in one all-purpose law of contract that can be enforced in a legalistic way. Rather, we are interested in the idea of "contract as a framework" (Karl Llewellyn). The object of contract, so construed, was not to be legalistic, but *to get the job done*. The key idea is this: the legalistic view of contract that applies to simple transactions needs to make way for a more flexible and managerial conception of contract as the preservation of ongoing relations takes on economic importance. The convenient notion of one all-purpose law of contract gives way to contract laws (plural) in the process.

Within a firm, transactions are organized by hierarchy. But what then is the contract law of internal organization? Williamson tells that "the implicit contract law of internal organization is that of forbearance" (Williamson, 1991b): the courts will hear cases relating to contracts between firms when there are disputes over prices, the damages to be ascribed to delays, failures of qualities and the like. But they will refuse to hear disputes between one internal division and another over identical technical issues. As access to courts is denied, the parties must resolve their differences internally. In other words, the firm becomes its own court of ultimate appeal. In effect, forbearance law authenticates hierarchy.

The strength of economics of governance lies in the fact that it has derived refutable implications and invited empirical testing.

Conclusions

The conclusions that we can derive from the economics of governance are:

1. Institutions matter and are susceptible to analysis;
2. Adaptation to disturbances is a key purpose of economic organization;
3. The action is in the microanalytics.
4. Positive transaction costs can be addressed in a comparative way;
5. Public policy toward business needs to be informed by a broad (organizational) understanding of the efficiency purposes served by complex contract and economic organization.

In short, economics of governance treats simple market exchange as a special case and features *ongoing* transactions for which adaptations are needed. The firm exists because of its ability to economize on transaction cost.

Although Williamson's main contribution was to formulate a theory of vertical combination, the broader message is that different kinds of transactions call for different governance structure. Today, the general idea of economic governance has been extended to theories of marriage (Pollak, 1985), to theories of regulation (Goldberg, 1976) and to theories of corporate finance. Finally, both through his writings and founding editorship of the *Journal of Law, Economics and Organization*, Oliver Williamson has contributed to eliminating many of the barriers to intellectual exchange among different disciplines of the social sciences. So, friends! "Be disciplined, be interdisciplinary and have an active mind". Thank you.



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Peer Reviewed Journal

***Development Ideas of
Gandhiji
and Amartya K. Sen***

Peer Reviewed Journal

MAHATMA GANDHI: A SOCIAL AND POLITICAL TECHNOCRAT***Introduction***

Of numerous metaphors that have been presented of Mahatma Gandhi, two have been very predominant one is saint and another one is politician. Some persons assess his personality as a saintly politician or a political saint. But as early as in 1920, Gandhiji himself declared that he was "neither a saint nor a politician" and claimed only to be "a humble searcher after truth, knows his limitations, makes mistakes and frankly confesses that he making experiments about some of the eternal varieties of life".

Gandhiji devoted his life not only for the country's political freedom but for "National Integration". Secondly, he did not start with a theoretical blueprint of national regeneration and means of achieving it, but followed the ideas as they formed and grew with the actual challenges of the Indian society at many levels. He asserted in 1926 that his ultimate goal of attaining moksha or self realization was impossible today without service of and identification with the poorest".

Answering the criticisms Gandhiji confirmed, "As per my thought, there is no political field which is not related to social is form. They are both interrelated...I would give the first position to the work of social reforms and only the second place to purely political work, if there is such a thing". Mahatma Gandhi's approach to social problems was akin to that of a social scientist in the sense that he was an alert, intensive, devoted appriser of Indian society, its ethos and its behaviour. He envisaged a direction in which the society may well proceed on its own and along with world interest.

AWFUL POVERTY

Gandhiji got a full view of the painful and degrading poverty of the Indian masses. The intensity of Gandhiji's identification with the hungry masses led to a change in his personal life. As an expression of concern for them, he adopted the lion-cloth as his dress in September 1921 at Madurai in Tamil Nadu. The chakra or the spinning-wheel as a concrete symbol of the swadeshi programme became a passion with Gandhiji who

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projected the wheel as a "nation necessity" which would supplement the slender resources of the rural poor. He poured out his heart in his statement in the Sessions Court at Ahmadabad during his trial on March 18, 1922. "Little do town dwellers know", he said, "how the semi-starved masses of India are slowly sinking to lifelessness. Little do they know that their miserable comfort represents the brokerage they get for the work they do for the foreign exploiter, that the profits and the brokerage are sucked from the masses. No sophistry, no jugglery in figures can explain away the evidence that the skeletons in many villages present to the naked eye. Gandhiji's care for the poor is reflected in the test and talisman he applied and recommended in August 1947 for one's moral and spiritual growth.

MATERIAL PROGRESS

Exploitation was justified by the inhuman theory of "economic progress" as being inevitable in the march towards great material prosperity for mankind. Gandhiji could not accept this view of mere material progress. True progress, he had, consisted in the development of man or woman's moral and spiritual faculties as well as his/her material welfare. Gandhiji told a college audience in Allahabad as early in December 1916, "is an economic truth of the highest value, we have to make a choice". There was no way of producing great material wealth without resorting to exploitation and oppression. It was, Gandhi added, idle to hope, as some Indians did, "that they will gain American wealth but avoid its methods". But, even if there was any such method, Gandhiji's objection was against the very goal of unlimited material prosperity. Above a certain level, he told a polish engineer, such comforts "become a hindrance instead of help. Therefore the ideal of creating an unlimited number of wants and satisfying them seem to be a delusion and snare".

NOT AGAINST MACHINERY

Gandhiji was not against machinery as such, but only against the use of machinery for enslaving and exploiting vast masses of people and stunting their growth as human beings. He explained his attitude in a nutshell while proposing the establishment of the All-India Village Industries Association at the Congress Session at Bombay 1934. "We do want machines" he said, "but do not wish to become their slaves. We should make the machine out slave. "Our Slave" means, slave not of the rich but of the poor".

Gandhiji, therefore, aimed at an economic system which would use modern technology wisely and judiciously to meet the reasonable material needs of the masses

without endangering. In the peculiar conditions of India, with her vast resources of unlimited manpower, he favoured the development of khadi and village industries in the means of building a decentralized economy.

REVOLUTIONARY RESOLUTION

Some of the idea Gandhiji urged as early as the Thirties were a kind that the most ardent among the social crusaders would have thought impossible of achieving in the conditions then prevailing. The Resolution on Fundamental Rights and Economic Changes drafted by Gandhiji himself and passed at the Congress Session in Karachi on 31st March 1931 at his instance advocated adoption of sweeping measures by a future Swaraj Government. The measures inter alia included free primary education, a living wage for industrial workers and their protection against economic consequences of old age, sickness and unemployment, prohibition against employment of children of school-going age in factories, imposition of a progressive rate of income-tax on agricultural income above a fixed minimum, total prohibition of intoxicating drinks and drugs, control by the State of key industries and State ownership of mineral resources.

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THE SOCIO - ECONOMIC THOUGHTS OF MAHATMA GANDHI AND AMARTYA SEN

Mahatma Gandhi was the greatest personality and humanistic thinker of 20th century. In addition he was a "**karma yogi**" to whom the theory and practice are ever the two different things. Hence in human history Gandhi remain as one of the rare personalities, who practiced his theory in his own life while putting before human world. Many of his followers also justified themselves in accordance with his theory and practice.

In 1921, Gandhi wrote, "Economics that hurts the moral well - being of an individual or a nation is immoral and, therefore, sinful". Again in 1924, he repeated the same belief, "that economics is untrue which ignore or disregards moral values" The economics of Gandhi might also be described as the economics of non-violence. Gandhi opposed modern capitalism because it is based on the exploitation of human labour. To Gandhi, **moral progress** is more important than **material progress**.

1 INDUSTRIALISM :-

Gandhi thought industrialism depended entirely on a country's capacity to exploit. Not only that an industrialized nation in order to find new markets for his goods produced under large scale production would tend to follow a policy of colonialism. It will lead to wars and all that. Man will become a slave to machine and lose his dignity Gandhi categorically said, "I do not believe that industrialisation is necessary for India".

Gandhi opposed large scale industrialisation also on grounds of social justice. Machinery would enrich the few at the opens of the many. He thought it would result in the concentration of economic power in a few hands.

Prof. Amartya Sen has had one of the most distinguished academic careers in the economic profession today. Prof. Sen is one of the world most important and influential intellectuals, one of its foremost thinkers, for his contributions to **Welfare Economics**.

2 Social Choice, Welfare Distributions, and Poverty

Prof. Amartya Sen has made several key contributions to the research on fundamental problems in welfare economics, His contributions range from axiomatic

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theory of social choice, over definitions of welfare and poverty indexes, to empirical studies of famine. They are tied closely together by a general interest in distributional issues and a empirical studies of famine. They are tied closely together by a general interest in distributional issues and a particular interest in the most impoverished members of society. Sen has clarified the conditions which permit aggregation of individual values into collective decisions, and the conditions which permit rules for collective decision making that are consistent with a sphere of rights for the individual. By analyzing the available information about different individuals' welfare when collective decisions are made, he has improved the theoretical foundation for comparing different distributions of society's welfare and defined new, and more satisfactory, indexes of poverty. In empirical studies, Sen's applications of his theoretical approach have enhanced our understanding of the economic mechanisms underlying famines.

3 Poverty indexes

A common measure of poverty in a society is the share of the population, H , with incomes below a certain, predetermined, poverty line. But the theoretical foundation for the kind of measure was unclear. It also ignored the degree of poverty among the poor; even a significant boost in the income of the poorest groups in society does not affect H as long as their incomes do not cross the poverty index: $P = H [I + (1 - I) \cdot G]$. Here, G is the Gini coefficient, and I is a measure (between 0 and 1) of the distribution of income, both computed only for the individuals below the poverty line. Relying on his earlier analysis of information about the welfare of single individuals, Sen clarified when the index can and should be applied; comparisons can, for example, be made even when data are problematic, which is often the case in poor countries where poverty indexes have their most intrinsic application. Sen's poverty index has subsequently been applied extensively by others. Three of the axioms he postulated have been used by those researchers, who have proposed alternative indexes.

4 Welfare indicators

A problem when comparing the welfare of different societies is that many commonly used indicators, such as income per capita, only take average conditions into account. Sen has developed alternative, which also encompass the income distribution. A specific alternative - which, like the poverty index, he derived from a number of axioms - is to use the measure $y \cdot (1 - G)$, where y is income per capita and G is the Gini coefficient.

Amartya Sen has pointed out that all well-founded ethical principles presuppose equality among individuals in some respect. But as the ability to exploit equal opportunity varies across individuals, the distribution problem can never be fully solved; equality in some dimension necessarily implies inequality in other. In which dimension we advocate equality and in which dimensions we have to accept inequality obviously depends on how we evaluate the different dimensions of welfare. In analogy with his approach to welfare measurement, Sen maintains that capabilities of individuals constitute the principle dimension in which we should strive for equality. At the same time, he observes a problem with this ethical principle, namely that individuals make decisions which determine their capabilities at a later stage.

5 Conclusion :-

The socio - economic thoughts of Mahatma Gandhi and Amartya Sen's Contributions are significant relevance for modern India, both are practical idealist. His economic thought is basically sound and is relevant to our times. Gandhi and Amartya Sen belongs to the future, and not the past.

Gandhi's emphasis on non-violence, decentralization, village swaraj are all relevant today. Gandhi believed that communist methods of violence and class war are unsuitable to Indian conditions.

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Mahatma Gandhi and Amartya Sen's Approaches to Development: A Comparative Analysis

Introduction

Mahatma Gandhi was a great philosopher or thinker who added many new dimensions to the History of thought. He reacted with vigour to every problem –political, social and economic with truthful means. Even though he was not an economist like Adam Smith, Marshall, J.M. Keynes etc he made some contributions which were related to economic activities intensively practical and comprehensive. He made references to the kind of economic system, he considered as ideal for India. He advocated certain policies with regard to the development of Indian agriculture, industries, Swadeshi etc.

Amartya Sen is an economist. In 1998, he was awarded the Nobel prize in economics for his contribution to *welfare economics* and *social choice theory* and for his interest in *the problems of the poorest members of society*. He has contributed to the understanding and measurement of poverty, explanations of hunger and famine, and shown a wide engagement with ethics, moral philosophy and *the meaning of "development."* In all his different works, he shows great concern for addressing issues on economic and social inequality and exploring the very basis of human wellbeing.

Gandhian Economic Philosophy

Mahatma Gandhi was a moralist and spiritual thinker, he was not an economist, but he believes that Economics that hurts the moral well being of an individual or a nation is immoral and therefore sinful. He declared that true economics stands for social justice; it promotes good of equally, including the weakest and is indispensable for decent life. His life was a live experiment for the eradication of poverty. He fought the might British with the weapon of non-violence and succeeded and fought unemployment poverty with *Chakra and Khadi*, but he could not live long to see its proper direction and success and his principle of Sarvodaya (welfare to all), could not be activated after him to achieve Gram Swaraj. Nevertheless, his social and economic Philosophy made an indelible impression on social and economic thinkers who devise schemes for the increase of economic status of the poor. V.K.R.V. Rao, an eminent economist of India believes that

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"Gandhian approach is essentially one of the practices accompanying profession in social reformation or in economic transformation.

Gandhi's Ideas on Development

Gandhi who also wanted production to be carried out in cooperation with nature by *using renewable resources* and who talked of the *need for autonomy* (independence) and *self-reliance* of people. According to Gandhi, the objective of development is to facilitate the unfolding of human personality. The objective of a fully developed human life, therefore, is happy living. But, the goal cannot be realized if efforts of human beings are directed toward satisfying limitless material wants to the exclusion of the pursuit of spiritual and cultural values. The production of consumer goods to satisfy material wants can only be possible by using violent means to obtain non-renewable resources and materials from the nature, i.e., by destroying nature. This oppression of nature and violence against it are a manifestation of the poverty of nature.

Gandhi accepted the essence of young Marx's ideas that man should be the center of attention in all economic and social activities. Thus, the poverty of a worker manifested in his or her alienation from the product, nature, and from all other human beings ought to be alleviated for the worker to enjoy the freedom to which he or she is entitled to pursue his or her self-determination activity. We can, therefore, also say that in young Marx's theory, poverty alleviation by bringing an end to the four forms of human alienation empowers people to be free and to be able to pursue their self-determination activities. Gandhi, however, rejected outright the state control of private property, the communist party dictatorship, the continuation of production in giant factories, and the ruthless suppression of individual freedom as the means to realize the goal of bringing about an end to human alienation. The objective of happy living for everyone in a country can only be realized by fulfilling basic needs, such as simple food, simple clothes, houses, health care, and education under a system of nonviolent production in cooperation with nature. Such a system entails *production of basic necessities in innumerable small-scale factory units* by workers who consume the products they produce. Gandhi, however, did not strongly oppose the production of more sophisticated consumer goods for distant (international or export) markets in large factories on a large scale. Gandhi's concept of basic needs, however, has a broader connotation which includes economic, social, and cultural needs. Hence, individuals with different kinds of capabilities will be engaged in different activities to satisfy different kinds of needs.

Amartya Sen's Economic Philosophy

Amartya Sen is one of the eminent economist who has given many contribution in Economics. He has been identified as the single most important thinker in the area of General Equilibrium theory and Welfare Economics. Sen's ideas about "development" are based on the relationship between freedom, poverty, and empowerment. Sen considers "development" to mean a great deal more than just economic growth or increases in some components of national income. It must contribute to the expansion of substantive human freedoms, as it is the effect of increases in physical output on the expansion of actual opportunities and freedom of people that measures the success or otherwise of development. But realization of this goal of attainment of substantive freedom also requires freedom of individuals to develop their capabilities and to utilize those capabilities. Thus, in Sen's theory, "freedom" is at once the means and the goal of development. Thus, if a person after obtaining education is not able to utilize his or her capabilities to obtain employment, then that person suffers from economic "unfreedom". According to Sen, is not low well-being but the inability to pursue well-being because of a lack of economic means. Poverty cannot be properly measured by income (GNP per capita). Instead, it must include measures of capabilities in a number of basic functioning central to well-being (such as being adequately fed and sheltered and being in good health) which indicate attainments that do not correlate closely with these functioning. These functioning can vary from those stated above to very complex activities such as being able to take part in the life of the community and having self-respect (Sen, 1999).

Thus, if a person has acquired certain education and skills and has been able to secure employment, then that person has the ability to pursue his or her well-being in terms of eating adequate food, taking good care of his or her health, and wearing reasonable clothes. Freedom in all these areas strengthens the capacity of that individual to seek freedom in the social area by challenging old social customs and prejudices which suppress the individual's freedom to pursue happiness and to seek freedom in the political arena. Total freedom then can be said to constitute the quintessence of development and happiness in life. But to reach that stage, a person's first requirements are education and skills which will ensure that person's capability to seek freedom in all other areas. This has to be provided to the citizens by the state or other organizations.

Freedom and development

In his work, freedom is a central element. Sen sees the expansion of freedom as both the primary *end* and the principal *means* of development (Sen, 1999). For example, political freedom is both a value in itself (to which we place an important value), but it is also important as an institutional mechanism that forces the political authorities to protect their population against big economic crises. Sen has not embodied his capabilities approach in any metrics. Still it has, together with other works ("*On economic inequality*", "*Choice, welfare and measurement*") been a foundational work to improve the indicators used to measure poverty rates and human development, which was instrumental in the development of HDI. In the HDI, the notion of development was enlarged from being measured in purely economic terms (GDP/cap), to also include the aspects of health and education.

The Link between Gandhi, and Sen

Social Choice:

Gandhi and Sen accepted that development does not simply refer to increases in national income: It connotes more than that. The deep undercurrent running through the writings of them is that the ultimate goal of development is to enable young Marx's "social man" to be free and happy in life. According to Marx, the center of all activities had to be the "social man" and his aspirations and happiness. But since under the current production system a man is alienated from nature and from other human beings and receives less than his contribution to the output, his happiness can only be ensured by preventing alienation from nature and society by universalizing private property. To Gandhi, to be happy is the ultimate goal of living.

Conclusion

A Gandhian structure of village economy could drastically improve the standard of living for the massive village populations. This campaign created small-scale businesses for village communities, national unity among everyone who practiced it, and helped Indians resist foreign imports that took financial activity away from India. A similar campaign could be developed which would facilitate economic activity that would develop into small businesses in the local markets. With this structure in place, villages could become more self-sustainable and government handouts and "Band Aid" development would be unnecessary. It would create both employment opportunities within the villages

as well as a consistent means of production and trade. It is a process that requires patience, but it is highly achievable. Gandhi's approach was to make machines serve human beings rather than being enslaved by modern technology – in other words 'production by the masses, and not mass production'. For Gandhi, social evils were a moral problem. Changes in values, the moral system of organization and moral rules to govern human behaviour and interaction were of importance in bringing about social change away from iniquitous, discriminatory, and hierarchical social structures (Gandhi 1960). Amartya Sen has analyzed various aspects in economics. His approach to development was normative economic approach. He mainly focuses on poverty, freedom, choice of technique, capability approach, and unlimited wants and so on. He supports an open world economy, he warns against reducing globalization to the unfettered expansion of trade and markets, and has become an articulate critic of neo-liberal policies. He argues that huge inequalities exist in the world because the market *alone* is not capable of assuring the wellbeing of people. He insisted that there is a must 'freedom and alleviation of poverty' for development. Both Gandhiji and Sen had given their wonderful creations.

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DEVELOPMENT IDEAS OF GANDHI

Introduction:

Gandhi and his followers also founded numerous *ashrams* in India (Gandhi had pioneered the *ashram* settlement in South Africa). The concept of an *ashram* has been compared with the commune, where its inhabitants would seek to produce their own food, clothing and means of living, while promoting a lifestyle of self-sufficiency, personal and spiritual development and working for wider social development. The *ashrams* included small farms and houses constructed by the inhabitants themselves. All inhabitants were expected to help in any task necessary, promoting the values of equality. Gandhi also espoused the notion of "trusteeship," which centred on denying material pursuits and coveting of wealth, with practitioners acting as "trustees" of other individuals and the community in their management of economic resources and property. Contrary to many Indian socialists and communists, Gandhi was averse to all notions of class warfare and concepts of class-based revolution, which he saw as causes of social violence and disharmony. Gandhi's concept of egalitarianism was centred on the preservation of human dignity rather than material development. Some of Gandhi's closest supporters and admirers included industrialists such as Ghanshyamdas Birla, Ambalal Sarabhai, Jamnalal Bajaj and J. R. D. Tata, who adopted several of Gandhi's progressive ideas in managing labour relations while also personally participating in Gandhi's *ashrams* and socio-political work.

Implementation in India

During India's freedom struggle as well as after India's independence in 1947, Gandhi's advocacy of homespun *khadi* clothing, the *khadi* attire (which included the Gandhi cap) developed into popular symbols of nationalism and patriotism. India's first prime minister, Jawaharlal Nehru was a socialist as well as a close supporter of Gandhi. While Nehru was influenced by Gandhi's aversion to the brand of socialism practised in the Soviet Union, he was also an exponent of industrialisation and critical of Gandhi's focus on rural economics.

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Gandhian activists such as Vinoba Bhave and Jayaprakash Narayan were involved in the *Sarvodaya* movement, which sought to promote self-sufficiency amidst India's rural population by encouraging land redistribution, socio-economic reforms and promoting cottage industries. The movement sought to combat the problems of class conflict, unemployment and poverty while attempting to preserve the lifestyle and values of rural Indians, which were eroding with industrialisation and modernisation. *Sarvodaya* also included *Bhoodan*, or the gifting of land and agricultural resources by the landlords (called *zamindars*) to their tenant farmers in a bid to end the medieval system of *zamindari*. Bhave and others promoted *Bhoodan* as a just and peaceful method of land redistribution in order to create economic equality, land ownership and opportunity without creating class-based conflicts. *Bhoodan* and *Sarvodaya* enjoyed notable successes in many parts of India, including Maharashtra, Gujarat, Karnataka and Uttar Pradesh. Bhave would become a major exponent of discipline and productivity amongst India's farmers, labourers and working classes, which was a major reason for his support of the controversial Indian Emergency (1975–1977). Jayaprakash Narayan also sought to use Gandhian methods to combat organised crime, alcoholism and other social problems.

Conclusion:

The proximity of Gandhian economic thought to socialism has also evoked criticism from the advocates of free-market economics. To many, Gandhian economics represent an alternative to mainstream economic ideologies as a way to promote economic productivity without an emphasis on material pursuits or compromising human development. Gandhi's emphasis on peace, "trusteeship" and co-operation has been touted as an alternative to competition as well as conflict between different economic and income classes in societies. Gandhian focus on human development is also seen as an effective emphasis on the eradication of poverty, social conflict and backwardness in developing nations. Gandhian socio-economic ideas have gained the interest and attention of an increasing number of people across the world.

DEVELOPMENT IDEAS OF GANDHI AND AMARTYASEN

Introduction:

Gandhi had developed while in South Africa, a philosophy of struggle for political and human rights through non-violence. He started to convince Indians to use his philosophy to achieve political rights for Indians. At that period the leader of Indian National Congress was Lokmanya Tilak who was militant and was supportive of violent actions against the British. Gandhi opposed to these ideas of Tilak but he admired the other ideas of Tilak. He agreed with Tilak that Indian political struggle was a matter of the people of India and not only of the intellectuals. Gandhi like Tilak supported a cultural and social change in Indian society. In 1920 Tilak died and Gandhi became the leader of Indian National Congress. Like other Indians whom the British fostered to 'think like the British', Gandhi's family also belonged to this group. Gandhi studied law in England. He dressed like an Englishman. After returning from South Africa (where he was discriminated because of his Indian origin) Gandhi changed his dressing style and began to dress like a simple Indian farmer. He remained in these simple Indian clothes even when he arrived again in England later on as a representative of the Indian National Congress, causing a complete surprise to his British counterparts. His philosophy was that all are equal and everyone should do all kinds of jobs. He built an ashram in which everyone did all different jobs. He even cleaned the toilet, which according to strict Indian customs was the job of the low castes and untouchables. Because of his revolutionary ideas many in the then elitist Indian society mocked at his philosophy. Later on, many of these mockers became his admirers and followers.

Gandhi's philosophy of struggle against the British was non-violent non-cooperation. He demanded from the Indians to restrain even if the British forces physically attacked them. He advised Indians to boycott anything British including British made garments, British universities, British courts and to refuse to follow respect and abide by British laws. He sometimes resorted to hunger strikes. Gandhi succeeded in sweeping the Indian people after him like no other Indian leader ever did before him. One of the

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famous Gandhi campaigns was the salt march. According to British law Indians could not produce salt, a basic food ingredient, but could only buy it from licensed salt factories, all of them were British owned. Gandhi organized in 1930 a 24 - day march to the sea and produced salt from the sea. In this march he gathered behind him the strength of hundred of thousands of people.

Mahatma Gandhi who became the leader of the Indian National Congress in 1920 did not always lead the Indian nationalist movement. There were periods when he was arrested and was completely isolated from the movement. Sometimes he severed from the nationalist movement for other causes. Even when he was the leader of Indian National Congress there were members in the Congress who did not accept his ideas. His opponents, who had other ideas about India even established movements within the Indian National Congress. In the early 1930s Gandhi even resigned from the leadership of the Congress because of growing criticism against his leadership. But from then on Gandhi became the father figure of the Congress. In 1942 Gandhi led the 'Quit India' movement. Gandhi himself adopted a simple, ascetic way of life, dressing only in a loincloth of handwoven cloth and sandals. He was jailed several times and went on hunger strikes to focus attention on his cause. When communal riots started on India's northwest frontier in 1924, Gandhi undertook a 21-day purificatory fast. After he had walked some 200 miles on foot to the sea to collect salt illegally, the Viceroy started to relieve the punitive salt taxes and the government monopoly. Gandhi also strove to raise the status of untouchables, the caste whom everybody avoided. He gave them the name *harijan*, or "children of God", and founded the weekly paper *Harijan*, which was published in English and Hindi. In an attempt to persuade the orthodox Hindus to wipe out the "blight of untouchability", Gandhi undertook fast in the summer of 1933 for three weeks. In order to promote village self-sufficiency, Gandhi popularized handspinning and made know *khadi*, hand-spun cloth, the "livery of freedom." However, Gandhi's rejection of the Industrial Revolution wasn't supported by some his most close fiends, among them Jawaharlal Nehru.

In 1936 Gandhi moved his headquarters from Sabarmati to Sevagram, a village near Wardha, which became a center to test his ideas. His eldest son Harilal turned into Islam in 1936 and changed his name to Abdullah Gandhi. During World War II Gandhi's struggle for India's independence and *satyagraha* (defence of and by truth) became a threat to the war effort of the Allies. Gandhi argued that India should remain passive and neutral in the world conflict. On May 10, 1942, Gandhi wrote in his newspaper: "The

presence of the British in India is an invitation to Japan to invade India. Their withdrawal would remove the bait. Assume however that it does not, Free India would be better able to cope with invasion. Unadulterated non-co-operation would then have full sway." Gandhi was arrested with Nehru and other Congress leaders, and interned in Aga Khan's Palace at Poona. At the age of 73, Gandhi began another fast. Winston Churchill, Britain's prime minister, who had earlier called Gandhi a "seditious fakir", suspected that Gandhi was fed glucose whenever he drank water: "... and this, as well as his intense vitality and lifelong austerity, enabled this frail being to maintain his prolonged abstention from any visible form of food. Nearly all the Indian members of the Viceroy's Executive Council demanded his release, and resigned in protest at our refusal. In the end, being quite convinced of our obduracy, he abandoned his fast and his health, though he was very weak, was not seriously affected." (from *The Second World War*, vol. 4., by Winston Churchill, 1951). Gandhi was released from custody unconditionally in the spring of 1944.

Conclusion:

Gandhi has been criticized for his nostalgia for ancient rural bliss and delaying the modernization and industrialization of his country. On the other hand, he has been regarded as the "true soul" of India. With other Hindu sages Gandhi shared a mistrust of worshipping followers, and he tried to avoid the title *mahatma*. In spite of this, his disciples regarded him as a saint. Gandhi's denial of the pleasures of food, sex, family, and friendship, has made his way of life extremely demanding for ordinary people, who otherwise have found inspiration from his courage and teachings. This question troubled George Orwell in his essay 'Reflections on Gandhi' (1949). While admitting that Gandhi never made claims of sainthood, he did not hesitate to reject sainthood as an ideal: "The essence of being human is that one does not seek perfection, that one is sometimes willing to commit sins for the sake of loyalty, that one does not push asceticism to the point where it makes friendly intercourse impossible, and that one is prepared in the end to be defeated and broken up by life, which is the inevitable price of fastening one's love upon other human individuals."

ECONOMY DEVELOPMENT IDEAS OF GANDHI

Introduction

Gandhi's dream of expanding village industries, industrial policy resolutions of 1948, 1956 and 1977 have offered a special favour for the development of small scale and village industries. The village and small-scale industries have been playing an important role in Indian economy in terms of employment generation and poverty alleviation. This is due to fact that these industries are labour-intensive and capital saving. The total employment created by these industries, for example were 3970000 in 1973-74. This rose to 12980000 in 1991-92. According to Economic Survey, 2000-2001 the estimated employment of the cottage and small-scale sector again rose to 17850000. The growth rate of this sector during 1991-92 to 1999-2000 was around 4 per cent.

This sector's contribution towards exports during the same period in value term has increased from Rs. 9,100 crore to Rs.36,470 crores. This shows a growth rate of over 300 per cent. In the post-reform period khadi and village industries play an important part in providing employment opportunities to disadvantaged group of people. These industries have spread in about 250000 villages out of total 581000 villages of India in 1997-98. In order to be more competitive in the world market the Khadi and Village Industries Commission has introduced Khadi denim jeans and Sarvodaya brand. These are eco-friendly and bio-degradable natural products and have high demand in the world market. Mechanization in agriculture has increased productivity but at the same time reduced employment opportunity. This very fact has been supported among others by S. Valla of JNU. Naturally stress should be provided on the creation of rural employment opportunity in the non-farm sector.

His economic aims were different from conventional economics. His aims were sarvodaya, full employment, use of country's own resources, preservation of ecology,

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justice in income distribution and opportunities. Every body should be given the right to earn according to his capacity using just means. The rich should serve the society after satisfying his needs. Life is not meant for enjoyment only, but it is meant to help others. For him the means are as important as the aims. The means must be nonviolent, ethical, and truthful in all economic spheres. He provided the new economic system with those means. He advocated trusteeship, decentralization of economic activities, labor intensive technology, and first priority to rural India. He explained that capitalism and mechanization would lead to unemployment, poverty, and inequality. Communism would not survive as it was inhuman. We have seen the collapse of communism and also observed unemployment, inequality of income and instability of common man even in rich a capitalist society.

A growth model for economic development is shown on the basis of Gandhi economic thoughts. This model is applicable to developing economies and India. His ideas are helpful for backward and developing economies in the world. His ideas are also useful for solving problems in capitalist economies.

Gandhian approach has always said about the voluntary wants, the need for self-sufficient village communities and the issues relating to better balance between man and nature. Gandhi wanted to have an ideal society of his own imagination and his economic ideas are a part and parcel of his philosophical and sociological ideas. He was interested in the growth of human beings and more significantly the growth of the deprived and underprivileged group of people. He was, in fact, the supporter of the maximization of social welfare and he had a belief that the growth of an economy is relied on the development of the totality of human personality. According to him, an increase in personal income is an indication of the growth of national income. But the opposite may not be true i.e. the growth of national income may not always benefit every man in society.

Relevance of Gandhi's Economic Ideas

The Gandhian view of self-sufficient village economy is also relevant in the context of reducing poverty and unemployment in rural India. In 1972-73, 54.1 per cent people lived below the poverty line in rural India. This slightly decreased to 51.2 per cent in 1977-

78. In 1983-84 it again fell down to 45.7 per cent. In 1993-94 this rate again came down to 37.3 per cent. In 1999-2000 it was roughly 30 per cent. The data presented here about poverty in rural India have been gathered from various issues of Economic Survey and Planning Commission. Although the ratio of poverty has been declining, roughly one-third of the rural people still live in abject poverty. In order to improve the conditions of the rural poor it is necessary to expand rural industries further at a rapid rate. At the same time it is essential to review seriously the rural anti-poverty programmes in the light of lapses noticed and in the context of formulating the tenth five year plan (2002-2007)

Conclusions

Gandhi is of the view that full employment of human resources is the basic need of a country. It is true that national income will increase if each and every persons (whether skilled or unskilled) is employed fully. This cannot be possible only with the development of large-scale industries because of their labour-saving nature. Agricultural sector too cannot solve the problem of unemployment or underemployment due to its seasonal nature. Therefore mechanization and large scale production cannot provide the solution to the problem of poverty and unemployment. Self-sufficient village economy is an alternative solution and in this context the role of institutions in the rural sector like the village panchayat and rural multipurpose co-operative can play a vital role.

GANDHIAN DEVELOPMENT IDEAS OF SARVODAYA

Introduction:

Four years later, in 1908, Gandhi rendered a paraphrased translation of Ruskin's book into his native tongue of Gujarati. Although inspired by Ruskin, the term would for Gandhi come to stand for a political ideal of his own stamp. The ideal which Gandhi strove to put into practice in his ashrams was, he hoped, one that he could persuade the whole of India to embrace, becoming a light to the other nations of the world. The Gandhian social ideal encompassed the dignity of labor, an equitable distribution of wealth, communal self-sufficiency and individual freedom.

Gandhi "A non-violent revolution is not a programme for seizure of power. It is a programme for transformation of relationships ending in a peaceful transfer of power." Satyagraha's basic rules are :

1. Clearly identify the issue on which the struggle would be launched,
2. Highlight its "Truth" to the opponent and request negotiations,
3. Keep the opponent and newsmedia fully informed of the campaign's objectives and plans
4. Instruct, inspire, train and lead the non-violent warriors,
5. Fund raise and economize maximally so as to sustain the campaign as long as necessary
6. Make suitable arrangements for the care of those who would be injured and the families of those who would be arrested.
7. When the opponent agrees to negotiate, formulate and conclude a mutually acceptable agreement and thereafter adhere to it faithfully.

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Conclusion:

Gandhi's ideas on Governance, Swaraj, terrorism, and the Charka as antidote for India's abysmal poverty, were first enunciated in his 1909 booklet 'Hind Swaraj', subtitled 'Indian Home rule'. Antony Parel describes it as "the seed from which the tree of Gandhian thought has grown to its full stature" and adds "It has been compared to such diverse works as Rousseau's Social Contract and the Spiritual Exercises of St. Ignatius Loyola". Gandhi's more fully developed ideas on governance are contained in his 1941 booklet : 'Constructive Program :Its Meaning and place'. It envisaged a society where self employment, the cooperative approach, communal harmony, complete equality among men, women and all sections of society, full democratic participation from village to national level, minimal state intervention in the economy and adoption of the Trusteeship principle by rulers and the rich would gradually replace mass unemployment, poverty, illiteracy, ill health and urban dominance.

FREEDOM – Sen's Manifesto for Universal Development

We live in a world of unprecedented opulence, of a kind that would have been hard even to imagine a century or two ago. There have also been remarkable changes beyond the economic sphere. The twentieth century has established democratic and participatory governance as the preeminent model of political organization. Concepts of human rights and political liberty are now very much a part of the prevailing rhetoric. People live much longer, on the average, than ever before. Also, the different regions of the globe are now more closely linked than they have ever been. This is so not only in the fields of trade, commerce and communication, but also in terms of interactive ideas and ideals.

And yet we also live in a world with remarkable deprivation, destitution and oppression. There are many new problems as well as old ones, including persistence of poverty and unfulfilled elementary needs, occurrence of famines and widespread hunger, violation of elementary political freedoms as well as of basic liberties, extensive neglect of the interests and agency of women, and worsening threats to our environment and to the sustainability of our economic and social lives. Many of these deprivations can be observed, in one form or another, in rich countries as well as poor ones.

Overcoming these problems is a central part of the exercise of development. We have to recognize, it is argued here, the role of freedoms of different kinds in countering these afflictions. Indeed, individual agency is, ultimately, central to addressing these deprivations. On the other hand, the freedom of agency that we individually have is inescapably qualified and constrained by the social, political and economic opportunities there are available to us.

Processes and Opportunities

Free-dom here involves both the *processes* that allow freedom of actions and decisions, and the actual *opportunities* that people have, given their personal and social

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circumstances. Unfree-dom can arise either through inadequate processes (such as the violation of voting privileges or other political or civil rights) or through inadequate opportunities that some people have for achieving what they minimally would like to achieve (including the absence of such elementary opportunities as the capability to escape premature mortality or preventable morbidity or involuntary starvation). Though, the distinction between the *process aspect* and the *opportunity aspect* of freedom involves quite a substantial contrast, both have importance of their own, and each aspect relates to seeing development as freedom.

The Ends and the Means of Development

There are two general attitudes to the process of development that can be found both in professional economic analysis and in public discussions and debates. One view sees development as a "fierce" process, with much "blood, sweat and tears"-a world in which wisdom demands toughness. In particular, it demands calculated neglect by various concerns that are seen as "soft-headed". The temptations to be *resisted* can include having social safety nets that protect the very poor, providing social services for the population at large, departing from rugged institutional guidelines in response to identified hardship, and favoring-"much too early"-political and civil rights and the "luxury" of democracy. These things, it is argued in this austere attitudinal mode, could be supported later on, when the development process has borne enough fruit: what is needed here and now is "toughness and discipline." The different theories that share this general outlook diverge from one another in pointing to distinct areas of softness that are particularly to be avoided, varying from financial softness to political relaxation, from plentiful social expenditures to complaisant poverty relief.

This hard-knocks attitude contrasts with an alternative outlook that sees development as essentially a "friendly" process. Depending on the particular version of this attitude, the congeniality of the process is seen as exemplified by such things as mutually beneficial exchanges (of which Adam Smith spoke eloquently), or by the working of social safety nets, or of political liberties, or of social development -or some combination or other of these supportive activities.

Constitutive and Instrumental Roles of Freedom

Sen deals with the latter approach, than with the former. It is mainly an attempt to see development as a process of expanding the real freedoms that people enjoy. In this approach, expansion of freedom is viewed as both (1) the *primary end* and (2) the *principal means* of development. They can be called respectively the "constitutive role" and the "instrumental role" of freedom in development. The constitutive role of freedom relates to the importance of substantive freedom in enriching human life. The substantive freedoms include elementary capabilities like being able to avoid such deprivations as starvation, under-nourishment, escapable morbidity and premature mortality, as well as the freedoms that are associated with being literate and numerate, enjoying political participation and uncensored speech and so on. In this constitutive perspective, development involves expansion of these and other basic freedoms. Development, in this view, is the process of expanding human freedoms, and the assessment of development has to be informed by this consideration.

The instrumental role of freedom concerns the way different kinds of rights, opportunities, and entitlements contribute to the expansion of human freedom in general, and thus to promoting development. This relates not merely to the obvious connection that expansion of freedom of each kind must contribute to development since development itself can be seen as a process of enlargement of human freedom in general. There is much more in the instrumental connection than this constitutive linkage. The effectiveness of freedom as an instrument lies in the fact that different kinds of freedom interrelate with one another, and freedom of one type may greatly help in advancing freedom of other types. The two roles are thus linked by empirical connections, relating freedom of one kind to freedom of other kinds.

Conclusion

Sen develops the basic idea that enhancement of human freedom is both the main object and the primary means of development. The objective of development relates to the valuation of the actual freedoms enjoyed by the people involved. Individual capabilities crucially depend on, among other things, economic, social, and political arrangements.

In making appropriate institutional arrangements, the instrumental roles of distinct types of freedom have to be considered, going well beyond the foundational importance of the overall freedom of individuals.

These instrumental rights, opportunities and entitlements have strong interlinkages, which can go in different directions. The process of development is crucially influenced by these interconnections. Cor-responding to multiple interconnected freedoms, there is a need to develop and support a plurality of institutions, including democratic systems, legal mechanisms, market structures, educational and health provisions, media and other communication facilities and so on. The institutions can incorporate private initiatives as well as public arrange-ments and also more mixed structures, such as nongovernmental organizations and cooperative entities.

The ends and means of development call for placing the perspective of freedom at the center of the stage. The people have to be seen, in this perspective, as being actively involved-given the opportunity- in shaping their own destiny, and not just as passive recipients of the fruits of cunning development programs. The state and the society have extensive roles in strengthening and safeguarding human capa-bilities. This is a supporting role, rather than one of ready-made deliv-ery. Thus, development is indeed a momentous engagement with freedom's possibilities.

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GANDHI IDEAS OF ECONOMIC DEVELOPMENT

Introduction:

Gandhi had an innate sympathy for the poor and deprived. This coupled with a direct observation of the predicament of the poor and the oppressed both in India and in South Africa led him to design an economic model that would alleviate the condition of the poor and the deprived. Gandhi believed that the high capitalist endeavors were at the root of all suffering. He believed that business without ethical considerations was fundamentally evil. This led to discrimination, oppression and exploitation. Gandhi also held that there is enough in this world to feed and clothe all. However, there is poverty and deprivation because one group of people thrives on the labor put in by others. Gandhi strongly believed in the ethics of hard work and that one is entitled to take from the system only as much as he is capable of producing. This according to Gandhi, was the only way to fight poverty and to disarm the world of all its economic woes.

The Basic Tenets of Gandhi's Economic Views

Gandhi also strongly believed that laziness and lack of work can cause immense physical and spiritual deprivation among the populace. It is impossible to ignite the masses towards a revolution leading to a bigger political or ideological goal if they are weak, both physically and morally. He understood that the new industrial modes of mass and large scale productions that have been ousting the age-old indigenous village techniques are ultimately leading towards unemployment and laziness. Therefore, he worked hard for a resurrection of the village modes of production.

The most unique feature of Gandhi's economic model was he wanted to turn the entire flow of profits from the pockets of the big industrialists to the workers. The consumer should, he believed, not only be concerned with acquiring high quality, inexpensive products, but also consider which sections of society are profited by his investment. Foreign clothes may be better and cheaper than the home-spun khadi, but the relentless

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use of the imported fabric would lead to unemployment of thousands of villagers who have traditionally earned a living by spinning and weaving home-made clothes. The same logic extends to agro-based products as well. Choosing such imported goods would lead to a degeneration of the entire village economy, which was the backbone of Indian economy, Gandhi believed.

But at the same time, Gandhi knew the actual implications of an aggressive capitalism: no such humanitarian economic considerations can possibly curb the relentless advance of the big mechanizations initiated by high capitalist agencies. Therefore, he devised a scheme to suit one and all. A nation low on man-power can well use mechanization to enhance its agricultural and mechanical production. But for a nation with a teeming population like India, it would augur no good. Secondly, he thought that a nation should produce only as much as it needs to produce. Extra production, resulting in the beginning of international economic race, would only lead to exploitation. The condition in India, for Gandhi, was ultimately a manifestation of the aggressive mechanization promoted by the British colonialists.

A Review of Gandhi's Economic Models

Gandhi's views on economics were simple and straight forward at the outset. They have even been criticized at various levels from being utopian to regressive. But it had deep political connotations. He understood economic motives to be the basic principle of imperialism and colonialism. And he therefore understood that the only way to attack and weaken the colonial forces would be to attack the basic economic profits that the British gained from the colonies. This coupled with his actual understanding of the Indian condition led to the development of a unique brand of economic re-orientation of the Indian society that he propagated throughout his life. However, it will be erroneous to consider his economic model to be merely a political tool shrouded in spiritual rhetoric. His concern for the predicament of the Indian villagers was genuine, as was his concern for a heartless mechanization of the world economy sans ethical considerations. In his time, the influence of his economic model was immense and has been dutifully followed in various parts of the world as well as in India, with varied degrees of success.

Conclusion:

According to Gandhi every person should be provided with bare minimum necessities i.e. food, shelter, and clothing. Concentration of wealth to a few groups of people certainly will shatter the dream of a society which will be socialist in nature. Gandhi is in favour of the self-sufficient village economy where the villages will be the independent economic units. In agriculture that techniques will be adopted, which will not deplete the soil and pollute the environment. For this farmers should use eco-friendly production technique by using lesser and lesser amount of fertilizers, insecticides and pesticides. He prefers well irrigation instead of large hydro-electric projects since this will lead to exploitation.

Peer Reviewed Journal

DEVELOPMENT THOUGHTS OF MAHATMA GANDHI AND AMARTYA SEN

INTRODUCTION

In order to free India from the Britain, a new sort of leadership was needed . Mohandas Gandhi wrote about satyagraha, or soul force, an individual and type of leadership. In contrast, Nobel Prize-winning economist Amartya Sen interprets leadership differently. Gandhi generally valued leadership at the village and individual levels. Gandhi believed that every village has to be self-sustained and capable of managing its own affairs even to the extent of defending itself the whole world, but Sen argues that this kind of leadership is only possible if the right climate is present at a national level. Sen calls them capabilities also depend upon a number of factors such as basic education and health. These factors also should be taken into account while measuring welfare. This article compares and contrasts the leadership visions of Gandhi and Sen.

OBJECTIVES OF THE STUDY

1. To compare two of these author's works in order to discover what each has to say about the role of leadership in India.
2. Gandhi, as one of the most leaders in the fight for Indian independence and non- violent resistance to Sen's ideal process of Political economic and social development, we can infer the role he believes leaders ought to play.
3. Under the Gandhian economic order, the character of Production will be determined by social necessity and not by personal whim or greed, trusteeship provides a means of transforming the present capital order of

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COMPARISON BETWEEN MAHATMA GANDHI AND SEN

India is expected to become critically important in world affairs in just a few years. The way Indian leaders direct their country will play a key role in the way the country develops. For guidance, leaders can look to two Indian thinkers, Mahatma Gandhi and Amartya Sen. Gandhi, as one of the most important leaders in the fight for Indian Independence, developed a distinctly Indian theory of leadership and non-violent resistance. Sen, a Nobel Prize winner economist, has done a good deal of work on development, especially as it relates to India. From looking at Sen's ideal process of political, economic, and social development, we can infer the role he believes leaders ought to play. In this paper, I will compare two of these authors' works in order to discover what each has to say about the role of leadership in India.

Hindu swaraj or Indian Home Rule, written by Gandhi in 1938, before Indian independence, deals with how India should be governed. In it, Gandhi contrasts the British style of colonialism with how he feels an independent India rule itself, and he provides a plan for getting there; satyagraha, variously translated as soul-force, truth-force, or love-force. Key to Gandhi's vision of independent India is the idea of individual leadership and self-reliance; a literal interpretation of "home rule".

In order for India to realize the potential Gandhi sees-not to become a "great" nation in the sense of the British Empire, but to be a nation in which every man is at peace with himself-each individual must experience Swaraj for himself (Gandhi, 1938, 56). At the end of Hind Swaraj, Gandhi lays out nineteen points that will give Indians the strength to take back their nation. Included are calls for Lawyers, doctors, and wealthy men to abandon their jobs for handlooms-if they do this, hopefully the rest of the Indian nation will give up trying to be like other countries. In this way, wealthy men exercise leadership by their influence. Gandhi warns that Indians must be prepared to suffer, but once they are free of Britain, they will be able to govern themselves. Although each village will be a self-sufficient community, they will be tied together by a common cultural heritage into one nation. Gandhi's India thus achieves independence not only from the colonizer,

but from colonial norms as well. It uses a uniquely Indian pattern of leadership to form a uniquely Indian society.

Sen interprets leadership differently than Gandhi does. In Sen's analysis, government must play a larger role: rather than the self-sufficient individual villages of Gandhi's India, Sen envisions a development process directed from the top down and from the bottom up. In this way, both political and individual leadership play a role. Unlike Gandhi Sen believes that development can be a good thing: where Gandhi says that "this civilization is irreligion", Sen thinks that the freedoms and rights that come with his version of development "may also be very effective in contributing to economic progress" (Gandhi 1938; Sen, 2000, 37). While in Gandhi's India, freedom and economic development are in many ways opposed, in Sen's they help each other along. People who can rely on technology to do some of the work they once had to do can now have more time for voting say, or educating their children. Like Gandhi's India, Sen's would not place money at the fore, but unlike Gandhi's, it would recognize that money does play a role in improving civilizations.

Once a good climate is created at the top, individual leadership is necessary in Sen's scheme as well. He comments, "Democracy does not serve as an automatic remedy of ailments as quinine works to remedy malaria. The opportunity it opens up has to be positively grabbed in order to achieve the desired effect". (Sen, 2000, 155). Individual leadership is required-development as freedom means that you have to take advantage of the freedoms recognized by a government. Democracy is arguably the best system that we know of to advance freedoms, but individual leadership is required within that framework. Similarly, Gandhi's satyagraha can be creatively applied to different situations, "the concrete form of action in every case being dependent on the attending circumstances, the nature of the issue, and the parties involved" (Bandyopadhyaya, 1969, 235). Leaders at the government level, or at levels below, must decide what freedoms to give or to take and how to use those freedoms. The political systems should encourage individual leadership; as Sen says, "Public policy has a role...in facilitating and guaranteeing fuller

public discussion... Central to this approach is the idea of the public as an active participant in change, rather than as a passive and docile recipient of instructions or of dispensed assistance" (Sen, 2000, 281). Government can facilitate individual leadership by increasing educational, economic and social opportunities, and it must also allow the public to speak out. When this is allowed to happen, Sen's development process can take place.

CONCLUSION:

Leaders in India and elsewhere can learn from Gandhi's and Sen's visions. Gandhi shows the importance of principled stands by individual leaders. His is a leadership by example. It is crippled, though by his insistence on an India that no longer exists. Sen gives us a model for India as it is. If a leader can combine Sen's democratic leadership structure with Gandhi's moral tactics, he will be able to take India far in the economic, political, and social realms.

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Professor Amartya Sen's Perspectives on Human Rights

1.1 Introduction

This paper analyses the work of the Nobel Prize winning Economists Professor Amartya Sen from the perspective of human rights. It assesses the ways in which Sen's research agenda has deepened and expanded human rights discourse in the disciplines of ethics and economics. Sen's development of a 'scholarly bridge' between human rights and economics is an important and innovative contribution. It also establishes that the idea of fundamental freedoms and human rights is itself an important gateway into understanding the nature, scope and significance of Sen's research. The paper concludes with a brief assessment of the challenges to be addressed in taking Sen's contributions in the field of human rights forward.

1.2 Sen's Contributions in Ethics

Is poverty a denial of basic human rights? The Universal Declaration on Human Rights (1948) established international standards in the field of poverty and human rights – including the human right of everyone to a standard of living adequate for health and well-being (including food, clothing, housing and medical care and necessary social services) and to free and compulsory elementary education. This cluster of human rights has long-since been codified in international treaties in legally binding form and the international recognition of poverty as a human rights issue has been strengthened in recent years. Yet influential discourses in ethics and political theory in both the libertarian and liberal traditions have excluded poverty, hunger and starvation from the domain of fundamental freedoms and human rights. They also failed to provide an inadequate basis for conceptualising authoritatively recognised international standards in this field.

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1.3 Ethical Dimension of Human Rights

With the above theoretical background, the contribution of Sen has been analysed and presented in two parts – Ethics and Economics. Sen's critiques of the characterisation of goods in the Rawlsian framework has been a key influence both on the modifications and extensions to the original scheme set out by Rawls himself and on this broader debate.

In Sen's view, focusing on 'primary goods' can result in indifference to, and neglect of, the actual things that people can and do achieve. The relationship between access to 'primary goods' and the things that people can do and be is contingent and conditional, and can vary between individuals, families and population goods. Therefore, there is a need to move beyond 'primary goods' as an informational focus for evaluative exercises concerning basic human interests, and to focus directly on the substantive freedoms that people can and do enjoy. In brief, Sen has given three themes to discuss upon: capacity approach, positive obligations and the idea of Universalism.

- 1 Sen has argued that individual substantive freedoms in the form of the capabilities and functionings that people can and do achieve be incorporated into ethical evaluation and included among the constituent elements of human freedom without losing objectivity. The central class of 'capability freedoms' focuses on the set of valuable things that a person is able to do and be. This class provides an elucidation of the 'opportunity aspect' of freedom. The 'capability perspective' does not provide an adequate or complete basis for a theory of fundamental freedoms and human rights.
- 2 In taking these ideas forward, Sen has argued that the greatest support for the elucidation of positive obligations of assistance and aid – including positive obligations to relieve poverty, hunger and starvation – may arise in moral structures that are 'consequentialist but not welfarist' (1982d, 358).
- 3 Finally, Sen's work in ethics has pushed the human rights agenda forward by defending the idea of universalism against the relativist and culture-based critiques. In rejecting approaches that locate the historical antecedents of contemporary ideas

about fundamental freedoms and human rights exclusively in Western traditions of natural law and natural rights, Sen has both subjected the idea of a monolithic Asian culture that is opposed to fundamental freedoms and human rights to critical scrutiny, and has defended the relevance of diverse cultures, religions and philosophies to the development of these ideas.

1.4 Economic Dimension to Human Rights

The idea of fundamental freedoms and human rights has often been neglected in theoretical and empirical economics. Dominant approaches have evaluated the adequacy of economic processes and arrangements in terms of income expansion. Standard frameworks in welfare economics have evaluated interpersonal advantages and the efficiency and fairness of competitive market outcomes in terms of utility – with no explicit recognition of instrumental and intrinsic value of fundamental freedoms and human rights.

In contrast, Sen has set out a far-reaching critique of standard frameworks that fail to take account of fundamental freedoms and human rights. The major postulates of Sen are presented here, in brief, for a deep analysis and interpretation. In fact, Sen's analysis draws influential view points from an historical perspective. That is, his analysis on famines in the world in general and in India in particular. His research agenda over more than forty years has highlighted the limitations of dominant income-focused and utility-focused paradigms in theoretical and empirical economics from the perspective of fundamental freedoms and human rights. And by this, it opened up important new lines of enquiry, and pioneering the development of radical new paradigms and approaches that take account of these concerns.

- 1 An evaluation of (1) personal advantages (2) the efficiency and fairness of market outcomes (3) poverty and inequality (4) the adequacy of public policy and institutional arrangements (5) the nature of development and growth, helped in the incorporation of new variables and concerns into theoretical and empirical economics including individual entitlements
- 2 The 'entitlement approach' provides a framework for assessing the impact of the 'rights-structure' that prevails in a particular society on poverty, hunger and starvation.

Where as, the concept of rights focuses on the relationship between two agents (two individuals, an individual and the state etc) and the Human Rights to Freedom from Hunger and Competitive Market Outcomes. The 'entitlement approach' has also generated debate about whether famines can occur under conditions of perfect competition with rational behaviour. Sen's analysis suggest that there is a possibility of a situation in which competitive markets clear, but in which not everyone gets an adequate food entitlement to guarantee survival. Where individuals and groups have no direct food entitlements there may be non-survival, with insecure food entitlements arising not as a result of market failure (as this is standard understanding), but when markets work. This analysis challenges approaches that rule out the possibility of starvation deaths due to an inability to buy sufficient food through production or exchange.

- 3 Argument that economic processes and arrangements should be evaluated from the perspective of individual substantive freedoms (rather than other informational focuses such as income and utility) is reflected in a series of influential proposals for evaluating individual advantages, the efficiency and fairness of competitive market equilibria, the adequacy and public policy and institutional arrangements, poverty and inequality and the nature of development and growth, in terms of the capabilities and functionings that people can and do achieve.
- 4 Sen's proposal that human equalities and inequalities be characterized and evaluated in capability space has moved the economic analysis of gender discrimination forward in innovative and important ways. Sen's empirical research findings also establish statistical relationships between gender discrimination and capability inequality. For example, Sen's analysis of the phenomenon of excess mortality and artificially lower survival rates of women in many parts of the world (the phenomenon of 'Missing women') suggest that although excess mortality, no such explanation was possible for female disadvantage in survival in infancy and childhood. Evidence of lower female-male ratios in countries in Asia and North Africa is indicative of the influence of social factors resulting in gender inequality including gender discrimination and the comparative neglect of female health and nutrition (1999a, 104-7; Dreze and

Sen (2002), 229-245). Other contributions in the field of gender discrimination include the analysis of underlying power asymmetries unequal gains in situations of 'co-operative conflict' and the use of 'bargaining threshold' to improve allocative outcomes (e.g. Sen, 1990).

1.5 Concluding Observations

To sum up, Sen has challenged the exclusion of poverty, hunger and starvation from the characterization of fundamental freedoms and human rights, and has contributed to the development of a framework in which authoritatively recognized international standards in the field of poverty and human rights can be meaningfully conceptualized and coherently understood. He pioneered the development of new paradigms and approaches that focus on human rights-centered concerns. This development of a 'scholarly bridge' between human rights and economics has been shown to be an innovative and important contribution.

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Economic Development ideas of Gandhi and Amartyasen

Introduction:

In assessing Gandhian thought, it all depends upon whether than one agrees with simplicity, non-violence, decentralization and ethical and moral consideration which form the basis of the Gandhian ideas; he would probably find that entire system of Gandhian thought is very logical. Otherwise, the traditional economist will find that Gandhian thought is extremely lacking in coherence on such modern issues as public finance, the problems of defense and international trade, monetary management and economic planning. In Gandhi's economics, there is a fundamental postulate that all countries would be organized on the no-violent pattern. Where such a situation is practicable or not, is quite a different matter. The relationship between Gandhian and socialism is interesting. Gandhi himself declared that he was a socialist and his ideal of Sarvodaya was the traditional Indian socialism. But technically, Gandhi is not a socialist. He would uphold private ownership of property by asking the capitalists to become the trustees of public property. At best he asked them to be enlightened capitalists and uphold the welfare of the workers at all costs. From the Marxist point of view, Gandhian economics is reactionary in its outlook.

Gandhi refused to recognize class-struggle and the fact that history had developed from one stage of socialism from the present state of capitalism. Like Sismondi Gandhi's solution of the problem of capitalist society consists in suspending material progress and technical inventions and to go back to a decentralized and simple system of economic organization. The Marxist charge is that Gandhi was trying to put the clock back and as such was unconsciously extending capitalist and feudal interest. The most outspoken critiques of Gandhian economics have come from the Indian Marxists. His economics is based on ethical foundation. In 1921, Gandhi wrote, "economics that the moral wellbeing of an individual or a nation is immoral, therefore, sinful". Again in 1924, he repeated the same belief: "that economics is untrue which ignores or disregards moral value".

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Amartya Sen has been identified as the single most important thinker in the area of general equilibrium theory and welfare economics after Hicks and Arrow by the Nobel committee. Sen has been awarded the Nobel Prize in economics for the year 1998. This is the most significant achievement in economics.

Economics of Mahatma Gandhi

**["Earth provides enough to satisfy every man's need, but not every man's greed"]-
M.K.Gandhi**

Mahatma Gandhi (1869-1948) derived the concepts of equalitarianism, simplicity and asceticism which later on became the foundation of his economic ideas. More popularly known for his non-violent struggle for India's independence, so much so that his birth anniversary is now also the International Day for Non-Violence, Mohandas Karamchand (Mahatma) Gandhi - who led India to her freedom, was also an environmentalist. And such was his passion, vision and understanding of the environment - back in the days when nationalism overruled any global thinking - that his writings and thoughts are punch lines for almost all present day environmental organizations and campaigns.

Gandhian development ideas

Mahatma Gandhi was also a thinker and one of the first who thought on the lines of sustainable development. His teachings of simple living and high thinking and considerable portions of his writings reveal his thought process in the direction of sustainable development. God forbid that India should ever take to industrialism after the manner of the West. The economic imperialism of a single tiny island kingdom is today keeping the world in chains. If an entire nation of 300 million took to similar economic exploitation, it would strip the world bare like a locusts." Excerpts like the above are vividly illustrated in Gandhi's writings highlighting his thoughts on development, politics and governance. A practitioner of non-violence and truth, Gandhi lived modestly in a self-sufficient residential community, wore traditional Indian dress, woven with yarn he had spun on a charkha. He ate simple vegetarian food, and undertook long fasts as means of both self-purification and social protest.

Amartyasen's Economics ideas:

Sen has contributed to economics is that he has challenged the western economic ideas based purely on individualism. The western economists believe that all economic problems can be solved through market mechanism or by the interaction between demand and supply. Price of a commodity is automatically determined by an invisible hand or by market forces. Distribution of commodities will automatically be executed through market mechanism or by traders for their self-interest. Production will increase if demand increase: distribution, price, determination or welfare was not in their agenda. They are of the view that all economic problems will be solved by market forces. But, Sen challenged these traditional ideas and distribution of goods, determination of price and increase of production market forces cannot solve economic problems.

Welfare economics

Amartyasen is concerned with welfare economics which did not so far get due importance. The individualistic economy believed that welfare will be automatically established in a free economy. The idea of free economy is the appendix of Darwin's concept of survival of the fittest cannot be accepted as social welfare. It means extinction of the weaker section of the community. Sen pointed out that the main aim of economics should be welfare to the people. He discussed famine, poverty, entitlement, capability; etc. and added a new light to the old ideas.

Amartyasen's early contributions in the theory of welfare economics and social choice had earned him distinction among the leading theorists of the economics profession. In specialized courses in Economic Theory we find discussions on Amartya Sen's work on welfare economics as a follow up of Kenneth Arrow's famous Impossibility Theorem. At the specialized analytical level, his research on social choice and social decisions have important implications for sharpening the majority decisions and implementation of social Programmes. The public choice theory, which is widely applied not only in economics, but also in political science and social philosophy, has been greatly enriched by his seminal contributions. But as a guide to direct policy choice, sometimes his welfare rules do not provide a clue to the policy-makers as well as practitioners- e.g., it is not clear how a government would decide on the stock of money and debt in the economy when there is inflationary spiral or balance of payments deficits on the basis of the social choice role that he proposed and refined.

Social choice

Sen challenged Nobel laureate Arrow's theory of 'impossibility'. Arrow's theory stated that reconciliation between social choice and individual choice is on impossibility, because individual preferences are different and vary in each case. Arrow thus advocated for private economy and he pointed out that there was contradiction between social choice and individual choices. Sen said that it was quite possible to bring a party between individual choice and social choice. Social choice is a conglomeration of individual choices or preferences. Sen's idea can be explained in this way: there is different type of private houses of individual persons. The house has been built according to individual preferences. The designs are different. But people are large benefited by those houses and the society also wants that this type of construction of individual house should continue.

The houses were constructed by daily-labours. Besides persons engaged in transportation of building materials, sellers of building goods, electricians, plumbers, shopkeepers and many others were associated in the construction work and they benefited by the individual choices. So members of the society at large desire that this type of private individual houses come up in large numbers for sustaining a continuous generation of employment opportunity. Here, individual choice and social choice coincides. If person lives on a roadside house, he will be personally interested to have a municipal official. If the municipality arranges a light post in front of his house others of the society will also be benefited. Here, there is hardly any dispute between individual choice and social choice is not extremely a selfish choice, and social choice. These two choices are mixed up. According to sen, if individual choice is not extremely a selfish choice, there is a possibility of coincidence between individual choice and social choice.

Conclusion

The essential ideas contained in all this can be easily summarized. First, machinery and handicraft should be complementary and helpful to each other. Second, it would not be possible to improve the economic conditions of the millions of the rural poor without the extension of cottage and small industries. And, third, that the problem requires should be studied inters of the aggregate effects and not in terms of individual units. If this was accepted, one could plan for large investments in railways, roads, electricity and in the manufacture of essential machinery, and then companies this with a plan for

decentralized small units of production, using idle labour and utilized raw material. Gandhi's conception of small industry was different from what is meant by small scale industry now, but the essence of the argument was clear. And the much talked of contradiction between a Gandhian plan and a plan of type that India was coming to adopt would also appear to be largely superficial. Amartyasen sen has a number of contributions in the areas of welfare as well as other fields of economics. He has argued that the Pareto approach to welfare has to exclude personal spaces of different individuals and their preferences based on the above in order to avoid the conflict between liberalism and social welfare. Sen is the author of important hypothesis, that small farms in which peasants work on the choice of techniques, are more efficient than large farms. In his work on the choice of technique, he argues that capital-intensive techniques would imply more sacrifices today in favor of more consumption later. The same would be true of employment as well.

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GANDHIAN IDEAS AND ITS IMPLICATION OF RURAL DEVELOPMENT IN INDIA

INTRODUCTION:

Mahatma Gandhi who was a great freedom fighter, and is a celebrated national leader had certain positive economic ideas based on non-violence and truth which have considerably moulded economic thinking and economic policies and Rural development in our country. His economic ideas and those his followers have come to be known as Gandhian Economic thought which has recently been re-stated and expanded by persons like Dr. J.C. Kumarappa. Gandhian economic thought which presents a Counter theory to the modern economics of the west, aim at revitalizing an under-developed economy which might develop into a Full-fledged stabilized economic and Rural economic system. Its study is important particularly for Indian students.

DECENTRALISATION:

Mahatma Gandhi admitted that electricity and motor transport had made small units of industry not only economically possible but even desirable. He was of the opinion that where a village industry was flourishing, it should be gradually mechanized; but should be left in small units. And in those parts of the world where industrialization was still young, the horrors resulting from centralized production could still be avoided. He advocated mechanized decentralization not merely for economic and social reasons but for the sake of a real Democracy which can flourish when small village Communities enjoy powerful local self-government.

REGENERATION OF VILLAGES:

It is well known that the villages of ancient India were-self-sufficient and economically self-dependent. In those days, production, distribution and consumption were almost simultaneous, mahatma Gandhi often said that the real India to be found in villages, not cities and towns.

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Mahatma Gandhi further described the exploitation of villagers, lack of supplementary occupation, inadequacy of medical attention, in sanitary conditions, extreme poverty, etc. He wanted every village to develop into a little public, independent of its neighbors in so far as its vital wants are concerned. He evolved the ideal of **Village Swaraj**, and enumerated the following conditions an ideal village.

- i) There should be orderliness in the structure of the village.
- ii) It should have fruit trees.
- iii) It should have a dharmashala and a small dispensary.
- iv) It should be self – sufficient in so far food and clothing requirements are concerned.
 - v) The roads and lanes of the village should kept clean so that "in the land of bare-footed pedestrians" nobody should hesitate to walk.
 - vi) The temple/Mosque should be kept beautifully clean.
 - vii) The lanes of the village should have gutters for draining off water.
 - viii) Every village should be capable of defending itself from robbers and wild animals.
- ix) Every village should maintain a public hall, a school and a theatre hall.
 - x) It should have an efficient water supply arrangement.
 - xi) It should have recreation facility a playground, a reserve for the cattle etc.
 - xii) If some space is left, it should grow money crops except tobacco, opium, etc.
 - xiii) Education in the village should be made compulsory up to the final basis standard.
- xiv) All activities of the village should be conducted on Co-operative lines.
 - xv) The Government of the village should be conducted by a panchayat of 5 persons duly elected every year by adult villagers.
 - xvi) The Village panchayat would enjoy judicially legislative and executive powers.

- xvii) The service of village guard should be compulsory – They should be selected by rotation.
- xviii) The caste system should not be practised. If all villages of the country could come up to the ideal conceived by him, Gandhi was confident that India would be free most of her worries.

SUGGESTION:

Gandhian ideas ways some of factors are developed in rural areas following in the bellow.

- (i) Basis Education more Developed in Rural areas.
- (ii) Removal of untouchability in Rural areas.
- (iii) Infrastructural facilities Developed.
- (iv) Panchayat and justice developed
- (v) Each and Every planning Decentralised From central.

CONCLUSION:

Gandhian ideas very useful for the rural development and prosperity. Mahatma Gandhi said villages has "back bone" of Indian Economy. Each and Every villagers should be fallowed the Gandhian ideas then all the Departments such as, Education, Socialism, judicial, Infrastructural Facilities removal of untouchability, the villages automatically will be Developed and also Our Nation developed.

DEVELOPMENT IDEAS OF GANDHI AND AMARTYA SEN

Mahatma Gandhi had multifaceted personality. His aim in the life was to achieve enlightenment by serving his nation and man kind. He was born in India and so he was of the opinion that it was his first duty to serve India. He did it through his thoughts, creative activities, different movements, organizations, and his own life- style. His creative activities can be classified in 18 forms which cover mainly political, economical, social, educational, religious as well as medical fields. Out of 18 forms of his activities were related to economic wellbeing of society. He was clear that economic self sufficiency for an individual and for a nation is unavoidable. This led him to think about and study upon various economic problems of the country and device action plans for solving them. This was the root of his economic thinking. His work or discussions or writing therefore, were not educational fancy but were the requirement of time.

According to him the constructive programme is a big undertaking including a number of items: **(1) Hindu-Muslim or communal unity, (2) Removal of untouchability, (3) Prohibition, (4) Khadi, (5) Other village industries, (6) Village sanitation, (7) New or basic education, (8) Adult education, (9) Uplift of women, (10) Education in hygiene and health, (11) Propagation of Rashtra-bhasha, (12) Cultivating love of one's own language, (13) Working for economic equality.**

He suggested that for nearly 50 years India would have to adopt his economic ideas to get economic independence and progress with minimum obstacles.

In this way Gandhi had his original vision in economics. He propagated a novel way of thinking in science of economics. He integrated economic aims and activities with morality and nonviolence. He integrated our successful past experiences with the recent development process. He made the use of labour force and live stocks and rural economy for the nation's smooth progress. He was the first thinker from the east who analyzed and rejected mechanization, capitalism and communism. He was the man who took the advantage of science and machine for the benefit of population at large.

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He was the first man in the world who provided a practical alternative economic system against the prevailing economic system. The village based economy of China and Israel, the small scale industry base economy of Japan are nearer to Gandhian ideas in some aspects.

A growth model for economic development is shown on the basis of Gandhi economic thoughts. This model is applicable to developing economies and India. His ideas are helpful for backward and developing economies in the world. His ideas are also useful for solving problems in capitalist economies. This proves Gandhi as a unique and practical economist of the world.

Gandhi has often quoted that if mankind was to progress and to realize the ideals of equality and brotherhood, it must act on the principle of paying the highest attention to the prime needs of the weakest sections of the population. Therefore any exercise on economic planning on a national scale would be futile without uplifting these most vulnerable sections of the society in a direct manner. In the ultimate analysis, it is the quality of the human being that has to be raised, refined and consolidated. In other words, economic planning is for the citizen, and not the citizen for national planning. Everybody should be given the right to earn according to his capacity using just means. The rich should serve the society after satisfying his needs and not merely enjoy his life.

Amartya Sen received the Nobel Prize in economics for the year 1998. In its Nobel citation the Royal Swedish Academy of Sciences emphasizes his contribution, particularly, to welfare economics. But his contribution to development economics is no less important. In fact, as an economist, Prof. Sen started his career with development economics as his subject of study. The thesis which earned him the Ph.D. degree in 1959 was entitled 'Choice of Techniques'. In this work he deals with the problem of choosing the suitable production technique in an overpopulated developing country. When published in book form in 1961, the thesis brought reputation for him also. But as a development economist Sen will not be remembered for this book. In fact, the concept of development got a new birth in the able hands of Prof. Sen. He added a human flavor to the concept of development. But this happened in later years.

After the publication of 'Choice of Techniques' Sen's interest turned to welfare economics, Prof. Sen resumed his writing on development economics almost a decade after. But, in the mean time a humanitarian outlook developed in Sen's approach.

Development, generally, is characterized as either expansion of availability of goods and services, or increase in utilities, or meeting basic needs. However, meeting basic needs can never be a good index of development. There are so many low-income countries where the basic needs of the people are already met, but a large section of people there are suffering from inadequate supply of health-care facilities, medical treatment, and pure drinking water and so on. Literacy rate there is very low, very low is their average life-expectancy at birth. May it be that the basic needs of the people are satisfied, but the hard truth is that they are not developed in the true sense of the term.

According to Sen development should not be viewed from economic angle only, rather it should be viewed from a humanitarian angle. In other words, the term 'development' does not imply mere 'economic advancement', rather it implies 'human development' in Sen's sense. Increase in income and wealth can ensure economic progress, but it may not entail human development as a whole. Initially Prof. Sen believed that it was the quality of life which was the main determinant of human development. Later on he started putting emphasis on various types of freedom for the development of mankind.

Development as Freedom

In his recent monograph 'Development as Freedom' Prof. Sen explains development as a process of expanding the real freedoms that people enjoy'. He writes – "Development requires the removal of major sources of unfreedom: poverty as well as tyranny, poor economic opportunities as well as systematic social deprivation, neglect of public facilities as well as intolerance or over activity of repressive states".

Indeed, we would fail to understand the deprivation of people unless and until we look at the restrictions that bind their lives and opportunities, the freedom that they lack. Development, in the alternative approach, thus defined as 'the process of acquiring and securing the freedoms that we have reason to value'. They make our lives richer and more enjoyable and unfettered, and they allow us to be fuller social persons, exercising our own volitions and interacting with-and influencing-the world in which we live

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GANDHIAN IDEOLOGY OF VILLAGE ECONOMY WITH REFERENCE TO 100 DAYS RURAL EMPLOYMENT PROGRAMME

1.1 Introduction

Gandhiji is our father of nation who had given importance for poverty eradication and rural employment programme. India lives in villages. Village economic development leads to development of the nation. At present only 11.2 per cent of the people are rich 41 per cent of the people are middle class people and remaining 37.8 are living on and below poverty line. Manmohan singh government now is implementing 100 days rural employment scheme so as to uplift the economic conditions of the people.

According to Gandhi "Rural India was to be found in villages and not in Towns and cities" so he suggested the development of self-sufficient and self dependent villages. He wanted every village to develop into a little republic, independent of the neighbours in so far as its vital works were concerned. Thus every village will be a republic or panchayat having powers.

Lokanathan. V –A History of Economic thought, S. CHAND, New Delhi, year 2009,

1.2. Area of study:

The area selected for the study is Kalpalayam village located in Lalgudi Taluk, Trichy District. It is situated on the Trichy to Chennai road and nearer to Perambalur Town. Total population of the village is 2500. The total number of families are 500 in number. In accordance with 2001 census, the male population is 1475 and remaining is female population. Among the 500 families 200 families are living on and below poverty line. These families are benefited much by 100 days rural employment programme. The village has very good tar road which has been linked with main road. Because of this scheme the infrastructure of the village has increased to a great extent.

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1.3 Objectives of the study:

The followings are the objectives of the study. The overall objective of the study is to know about the implementation and benefits of the scheme.

1. To estimate the increase in income of the poor families.
2. To uplift the standard of living of the families.
3. To understand the infrastructural development of the village.
4. To remove inequality of wealth and income of the people in the village.

1.4. Hypotheses of the study:

The followings are the hypotheses of the study.

1. Increase in income leads to increasing standard of living.
2. More infrastructural facilities lead to self-sufficient and self-dependent of the villages.

1.5. Methodology:

Primary and secondary data are used in the analysis of the study. Each individual is interviewed with regard to 100 days work programme. A perfected questionnaire is used to collect primary data, secondary data are also used in this study. Percentage, averages and correlation are used in the analysis.

1.6. Hypotheses testing:

The hypotheses are tested by deductive method of reasoning statistical tools like percentage is used to support results.

1.7. Period of study:

3 months period is taken into account i.e. Sep 2009 - Nov 2009.

Analysis of 100 days work programme.

Table 1: Details of sample population

Number of families	Males	Females	Total	Percentage
25	115	110	125	100

Source: Primary data

Table 1 reveals the fact that 115 are males and 110 are females. So 125 persons are covered by 100 days work programme in the village. Each member of the family is given a identity card to participate in this programme. So each family is given 100 days work. If there are five members in the family each member can work for 20 days. Thus 100 days work programme is a heaven sent boon to the poor people in the village.

Table 2: Education wise and martial status wise distribution of sample population

Source: Primary data

Education	Martial status			
	Married	Unmarried	Total	Percentage
Illiterate	40	10	50	40
I std – V std	30	5	35	28
V std – X std	20	10	30	24
X std and above	-	10	10	8
Total	90	35	125	100
Percentage	72	28	100	-

Among the total workers 40 married and 10 unmarried are illiterates. I std to V std educated married are 30 and 5 are unmarried. Remaining 30 belong to V std and above.

For getting employment in the scheme is not necessary. But all the illiterates and

Number of families	Wage per day in Rs.	Total amount of wage per year in Rs.	Sample families income per year
25	100	2,50,000	2,50,000

educated upto X std are also found in this scheme. Married and unmarried are also seen in this programme.

Table 3: Income earned by the families through 100 days work programme

Source: Primary data

Sample families in this study is 25 in number wage per day is Rs. 100. So for 100 days each family income is Rs. 10,000. Therefore 25 families income per year is Rs. 2,50,000. Thus every year the poor families are getting Rs. 10,000 through 100 days

work programme. This is a permanent income of the poor family. This is added with other income of the families. Thus 100 days work programme enables each and every family

Infrastructural development	Worth of the infrastructure in Rs.	No. of mandays
Village street road	20,0000	20,000
Village road linked with main road. (Trichy – Chennai)	50,0000	5,000
Deepening of the lake	2,50,000	2,500
Total	7,50,000	75,000

to have a better life. So their standard of living has been increased. The people living on or below poverty line have been uplifted to middle class people living standard. Thus the first hypothesis is proved.

Table 4: Infrastructural development of the village

Source: Primary data

Table 6 indicates asset creating activities of 100 days rural work programme. Total number of mandays involved for village streets road, linking village road with main road i.e. Trichy – Chennai road and deepening the lake are 7,50,000. The worth of three assets is Rs. 7,50,000. For lake Rs. 2,50,000 for linking village road with main road, Trichy – Chennai Rs. 5,00,000 and for village street road Rs. 2,00,000.

Findings of the study:

1. Most of the people employed in this scheme is illiterates.
2. Wage is high, so it satisfies the needs of the people.
3. Income of the people is very low before joining the employment scheme but after joining the scheme they earn sizable amount of money.
4. Infrastructural facilities improved the village agricultural, educational and other allied activities of the people.
5. Inequality of income and wealth is reduced to a great extent.

Conclusion:

Thus it is concluded that 100 days rural work programme is a blessing in disguise to the rural people, because it improved their standard of living.

THE ROLE OF AMARTYA SEN

Introduction

Amartya Sen was awarded the Nobel Prize in Economics in 1998 for his contributions to Welfare Economics. He is the first Indian to have got the Nobel Prize in Economics in the recent years. It is worth noting the features of Nobel Prize in Economics at this juncture. Amartya Sen was awarded the Nobel Prize Economics in 1998 for the 'Contributions to Welfare Economics'

Social Choice and Social Welfare

Social Choice theory related importantly to a more widespread interest in aggregation in economic assessment and policy making [related to poverty, inequality, unemployment, real national income, living standards]. There was a great reason for satisfaction in the fact that a number of leading social choice theorists [in addition to Prasanta Pattanaik] emanated from the Delhi School, including Kaushik Basu and Rajat Deb [who also studied with Sen at the London school of Economics] and Bhaskar Dutta and Manimay Sengupta, among others. There were other students who were primarily working in other areas [this applies to Basu as well], but whose work and interests were influenced by the strong current of social choice theory at the Delhi school.

Collective Choice and Social Welfare

In this book, *Collective Choice and Social Welfare*, published in 1970, Sen made an effort to take an overall view of social choice theory. There were a number of analytical findings to report, but despite the presence of many 'trees' [in the form of particular technical results], he could not help looking anxiously for the forest. He had to come back again to the old general question that had moved him so much in his teenage years at Presidency college; Is reasonable social choice at all possible given the differences between one

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person's preferences [including interests and judgments] and another's [indeed, as Horace noted a long time ago, there may be 'as many preferences as there are people'].

From Social Choice to Inequality and Poverty

The constructive possibilities that the new literature on social choice produced directed Sen immediately to making use of available statistics for a variety of economic and social appraisals; measuring economic inequality, judging poverty, evaluating projects, analyzing unemployment, investigating the principles and implications of liberty and rights, assessing gender inequality, and so the principles and implications of liberty and rights, assessing gender inequality, and so on. Sen's work on inequality was much inspired and stimulated by that of Tony Atkinson.

Poverty, Famines and Deprivation

From the mid-1970s, Sen started work on the causation and prevention of famines. He attempted to see famines as broad 'economic' problems, rather than in terms of the grossly undifferentiated picture of aggregate food supply for the economy as a whole.

Sen and the Nobel Prize

Amartya Sen already was a 'candidate' in 1997. Also The Berlin based E-JOE list voted for Amartya Sen in an Internet Poll for Nobel Laureate in Economics. This year it happened again [1998/10/06], and this time they were right.

Amartya Sen's observations

Mr. Sen's insights have been accurate-such as the observation tat famines don't necessarily arise from a lack of food-they have been unremarkable. Famine usually has political causes, as anybody who watched the Ethiopian Government deliberately starving its people in the 1980s could have figured out. Elsewhere, Mr.Sen has just been wrong. When it comes to development economics, he focused on the importance of Governments in promoting growth and bringing about a more equitable distribution of resources. But it has become clear over the years that those countries that interfered least with their markets have done best, both in absolute terms and in providing for the worst-off.

Criticizing Amartya Sen, then it surely was necessary to award the Nobel Prize to him for his contributions to welfare economics. Until recently the public discussion on welfare economics lacked sincerity. Lots of contributions to that topic sounded like the outburst in the WSJ. Sen's research is not meant to help editorial writers in writing their editorials in a few minutes. Simple minded people easily get confused if an opponent makes 'it hard to pin down his view'.

The traditional theory of social choice, postulated that each individual is able to rank different social alternatives, according to the utility they represent for him or her. However, the theory did not postulate that it is possible to compare one person's evaluation of a particular social alternative with that of another person. By not making interpersonal comparisons, a difficult philosophical issue is avoided, but it unfortunately makes it impossible to draw any interesting conclusions about inequality.

Amartya Sen's results from his studies of the theory of social choice, have found an important application here. On the basis of his analysis of the comparability of individual welfare, he has proposed indicators for welfare, income inequality and poverty, which have since been put to extensive use. By deducing these indicators from a small number of reasonable axioms, he has made it easier to evaluate differing social states – if the axiom behind the indicator appears to be reasonable then the ranking according to the indicator will also be reasonable.

Amartya Sen's research has created a better basis for developing measures aiming at preventing and combating famine.

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AMARTYA SEN AS AN ENABLER OF HOUSEHOLD FOOD SECURITY: HIS ENTITLEMENTS APPROACH

INTRODUCTION AND PROBLEM FOCUS

Food security is the basic requirement for human resource development. By food security, physical and economic access of food to all sections of the society is meant. Food security is integral to livelihood security in terms of capabilities, assets and activities required for living. No country can secure sustainable economic growth or poverty reduction without healthy, well-nourished and educated people. No other economic analysis, except food security analysis, can fully encompass the benefits of sustained mental and physical development from childhood into adult life. Thus, food security is a priority concept in developmental economy.

The roots of concern with food security can be traced back to the Universal Declaration of Human Rights in 1948, which recognised the right to food as a core element for an adequate standard of living. Such a right-based approach is derived from the ethical position that all people are entitled to a certain standard of material well-being. About twenty-five years later, dismayed by the global food crisis of 1972-74, the World Food Conference was instantaneously convened in Rome in 1974. It was resolved that by 1984 no child, woman or man should go to bed hungry and no human being's physical or mental potential stunted by malnutrition. Today, 35 years after the resolution was made and 25 years past the deadline "Over 700 million people go to bed hungry globally, 800 million suffer from chronic under-nutrition in less developed countries, and 200 million children under the age of five suffer from malnutrition in Asia."

The emerging need for global food security was felt by the Food and Agriculture Organisation (FAO, 1986). In 1990, one of its functional objectives was to ensure "the availability of sufficient quantity of food and sufficient means to purchase it." It is in this backdrop the FAO had convened the World Food Summit in 1996 to devise an

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internationally acceptable strategy for sustainable food security. In a review-study of this Summit's recommendations, Dr. M.S.Swaminathan, extends the emphasis to "focus on the ability to assure on a long term basis, that the food system provides (1998) the total population access to timely, reliable and nutritionally adequate supply of food.

THEORETICAL ISSUES IN FOOD SECURITY

Theories are slotted into supply-side and demand-side perspectives.

Supply-Side Perspective: (FAD Approach to Food Security)

Food security has been a theme of discussion even during the classical era when it was done at the macro-level from the supply parameter in terms of Food Availability Deficiency (FAD). Adam Smith (1776) attributed the outburst of famine conditions to FAD. In his often quoted article "Digression Concerning the Corn Trade and Corn Laws," in Book IV of the *Wealth of Nations*, he theorised that famines could be caused only by a real scarcity situation, and a plenty of scarcity situations were caused by natural calamities like drought, flood and seasonal failures. But, David Ricardo (1815) contradicted Smith's views and proclaimed that famines could occur in situations of "super-abundance." **Demand-Side Perspective: (Entitlement Approach to Food Security)** Complementary to the supply perspective, which considered food availability as a matter of factual investigation, the demand side focus assumed importance in the food security equations.

FAD is based on population growth and physical access (agriculture stagnation) where as, 'economic access' is the phenomenon of the 1980s, largely resulting from the pioneering work of Amartya Sen (1981) on food entitlements. Using the entitlement framework Sen demonstrated that food insecurity (famine in Sen's terminology) could occur in the absence of any change in production. Sen, while investigating the causes of various famines (Bengal in 1943, China in 1948 and Bangladesh in 1974) found that these famines took place when food was available in adequate quantities and in some part of the areas, per capita availability of food was the highest during those years when compared to the earlier or subsequent years. Sen's Entitlement theory went beyond the narrow study of food availability.

FOOD SECURITY AND THE HOUSEHOLD

The concept of food security can be applied to analyse wide ranging issues pertaining to continental, inter-continental, national, household and individual level food

and nutrition situations. But whatever the range, its ultimate focus will be on food security at the household and individual level. The concept of food security at the household level is appropriately defined by International Fund for Agriculture Development (IFAD, 1992) as, "the capacity of a household to procure a stable and sustainable basket of adequate nutritious food." Though a slightly deviatory working definition is employed at times, as when the discussion shifts from the national to household level, there are no serious underlying contradictions to this definition in this paper.

The three key dimensions of household food security are availability of food, access to food, and utilisation of food. At the household level, the food security strategy encompasses both supply and demand issues. It involves the production of food and therefore issues such as secured ownership of access to resources and services including land, labour, credit, and extension; it involves the consumption of food and therefore issues such as nutrition, health, food storage and preparation, and access to income with which to purchase food. The link between poverty and food insecurity reflects a household's access to food, what A.K.Sen calls "Exchange Entitlements" (Sen, 1981). The entitlement approach concentrates on each household's entitlement to commodity bundles which includes food, and views food insecurity as resulting from a failure of the household to be entitled to a bundle of commodities with enough food.

POLICY SUGGESTIONS

Based on Sen's entitlement approach policy measures are suggested to build up coping strategies for household food security.

Agricultural extension services are needed to disseminate knowledge on the income generating potentials to the rural people. They need to be advised on low labour requirement crops and crops that need minimum land preparation, weeding techniques, and sources of irrigation. They should be educated to identify crops that are fit for direct consumption and encashable.

The National Rural Employment Guarantee Programme (NREGP) is the single most important measure of social security for the rural poor in India today. It should be strengthened by means of plugging the gaps in its implementation and enhanced to all areas with alacrity.

Public Distribution System (PDS) needs to be restructured ensuring more efficient food distribution. The Government should try to adopt a universal system of distribution rather than TPDS so as to ensure that no section of the population is deprived of food. Exploring alternative options to the public distribution system like issue of food stamps to promote economic access of food to the poor and the vulnerable population especially in food deficit and dry land areas is considered necessary. Food policy should be linked with population policy. In order to solve the problem of under nutrition there is a need to look for supra-food solutions. Non-nutritional factors such as access to safe drinking water and adequate sanitation should also be considered.

Asset creation and non-farm livelihood opportunities for women should be prioritised. Asset creation is necessary because women belonging to economically under-privileged class are often over worked and under paid and they remain poor, because they have no productive assets. Since agricultural work is seasonal, non-farm livelihood opportunities provide a strong base for current and future food security which in turn may lead to sustainable food security at the household level.

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GANDHI AND COMMUNAL HARMONY**Introduction**

Gandhiji is one among a few men, who aroused stranger emotions or touched deeper chords of humanity. He made an indelible and strong impact on his contemporaries which made Einstein to comment on Gandhiji in July 1944 that men "will scarcely believe that such a one as this (Gandhiji) in flesh and blood walked upon this earth".

Albert Einstein called Gandhi a "luminous contemporary beacon to the generation to come". His greatness as a social inventor is shown by the close adaptation of his methods to the culture and modes of thought and feeling of the people and to their economic and technological resources.

The widespread and difficult social problems on which he has especially worked were: 1) Sanitation and public health, nutrition and agricultural reforms, 2) Education, 3) Disunity and friction between social groups, 4) Violence between individuals, groups and nations, 5) Unemployment, 6) Poverty.

Throughout his life, Gandhi sought to develop ways to fight India's extreme poverty, backwardness and Socio-economic challenges as a part of his wider involvement in the Indian independence movement.

Relevance of Satyagraha in politics

In his essay "Satyagraha" Gandhiji says that in United Kingdom and South Africa at first people used passive resistance to oppose an unjust government. It did not exclude the use of physical force. Gandhiji considered that it was the weapon of the weak people. He introduced the new movement called Satyagraha. The word Satyagraha was coined by Gandhiji. In opposing an unjust law or unjust government one who follows Satyagraha will not use violence in any shape or any form. He suffers himself by inviting the penalty for the breach of law. Hence Satyagraha is a Civil Disobedience. It is civil in the sense

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that it is not criminal. A civil resister ever obeys to the laws of the state which he belongs to for he considers them to be good for the welfare of the society. When he considers certain laws are to be unjust it is dishonour to obey them. So, he civilly and openly breaks the law and suffers the penalty for the breach of law. It is the weapon of the strong people.

People who follow Satyagraha indulge in non-cooperation social boycott and political boycott. One who practises non-cooperation must obey to his conscience rather than the law of a government. He must get rid of his personal weaknesses. Hence it purifies the soul of a person who practices it. Thus non-cooperation and spirituality are interrelated.

Social boycott is as ancient as the society itself. In olden days a community would not extend its hospitality or service to a person, if he disobeyed a law which was beneficial to all. It was called excommunication.

Even in this modern world people can adopt social boycott to bend the will of the people, who disobey to the opinion of the majority of the people. It gradually purifies the heart of a person, who disobeys, to a good opinion. Thus it achieves the purpose of purifying one's heart without using violence. Further social boycott can be used to settle private disputes.

Gandhiji believed that people should not compromise with an untruth irrespective of religion, caste and creed. The voters must be true to their pledge. If one does not vote for a particular party, one should not seek the services of the party. One should not encourage the principle of the party attend its political meetings. So, if a political party indulges in misanthropic activities it will face its natural death.

Relevance of non-violence in politics.

According to Gandhiji a man of non-violence is humble. He will not resort to violence at any cost. He places his reliance on God. God will come to his help whenever he needs it. A man of non-violence is just like a mango tree which droops as it bears fruits. His greatness lies in his majestic lowliness. Thus indulging in non-violence inculcates in him strong faith in God and humility.

As a true follower of Satyagraha and non-violence, Gandhiji protested against the

western materialism and militarism five years before the out break of the first world war. In the beginning it appeared quixotic. To-day as the world trembles on the brink of a third world war, the principles of Gandhiji seem to be prophetic. Further by irrevocably renouncing violence, Gandhiji took a line in direct opposition to the dominant ideologies of the twentieth century capitalism and communism. He visualized and worked for a society which would provide for the essential needs of the community. It minimizes the incentives for exploitation of the common man. The non-violent technique helps not only to maintain law and order but also protects a nation against external aggression. The spirit of non-violence encourages to fight against our own fears, creeds and egotism, Non violence is the law of our species as violence is the law of the brute It is a birth of a new civilization.

Rabindranath Tagore once aptly described Gandhiji as essentially, "a lover of men and not of ideas". He resolved to refashion history and write "a new history" which adores his weapons of Satyagraha and non-violence. At the beginning his life was quite an ordinary one, such as any one might have lived. England made him a barrister. So he was in support of the British Empire in wars, Africa made him a resistance leader and India made him a Mahatma. His principles of Satyagraha and non-violence created an awareness that an individual and a nation can achieve their ends without resorting to violence. They kindled the spirit of nationalism, which paved way to get freedom for India.

Conclusion

Gandhiji is one among great men, who are born once in blue moon, like Jesus Christ, Buddha, Martin Luther King, Abraham Lincoln and Sri Sarada Devi. He will be remembered as long as the world exists for he is an eye-opener of nationalism which brought freedom to India. His principles of Satyagraha and non-violence envisage peace and safety to an individual and a nation. He has proved that, if the foundation of politics is based on spiritualism, peace and happiness will prevail everywhere. Satyagraha is the strongest and the sharpest weapon, that can be used against injustice. Non-violence preaches humility, which is a true way to success. If the Gandhian principles are followed, inspite of many havocs done by scientific inventions and discoveries man can still live a happy life on this earth. He revealed to the masses a power not of rifles and machine-

guns, such as their oppressors used, but the power innate in each individual unit of the great mass, a power which this war-haunted world has yet to realize, and which, exploited to the full, can make war impossible. Ahimsa is inextricably bound up with the philosophy of love and the pursuit of truth, that, indeed, Ahimsa is love universally applied. Gandhi demonstrates it in relation to contemporary life, and there in lies his power and his saintly greatness.

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Concept of Social Exclusion According to Amartya Sen

History of the Concept

René Lenoir in his *Les exclus* in 1974 used the term social exclusion to draw attention to the marginalisation of certain physically, mentally or socially disabled groups. He highlighted that people belonging to these groups are left behind in social and economic development. Here social exclusion means being left aside on the margin. Though the concept was used first time by Lenoir, the various forms of exclusion existed long before. "Ostracism in Athens, proscription in Rome, the lower castes in India, the many forms taken by slavery, exile and banishment, the existence of ghettos and excommunication are (merely?) historical manifestations of the manner in which every society has rejected undesirables, strangers or the prisoners of war, in the words of an old song." (Estivill, 2003:5) The separation between insiders and outsiders accorded full rights to the former and others with a lower status or no rights at all for the latter. Those days these forms of exclusion were considered morally acceptable.

Concept of Social Exclusion

Social exclusion describes a process by which certain groups are systematically disadvantaged because they are discriminated against on the basis of their ethnicity, race, religion, sexual orientation, caste, descent, gender, age, disability, HIV status, migrant status or where they live (DFID, 2002). Social exclusion is a process through which communities and groups are wholly or partially excluded from the mainstream development process of the society.

Social exclusion is a process that deprives individuals and families, groups and neighbourhoods of the resources required for participation in the social, economic and political activity of society as a whole. This process is primarily a consequence of poverty and low income, but other factors such as discrimination, low educational attainment and depleted living environments also underpin it. Through this process people are cut

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off for a significant period in their lives from institutions and services, social networks and developmental opportunities that the great majority of a society enjoys (Pierson, 2001). Developing the concept in the caste ridden hierarchical Indian society, Thorat explains that "Social exclusion is the denial of equal opportunities imposed by certain groups on others rebutting in the inability of an individual to participate in the basic political, economic and social functioning of the society." (Thorat, 2007).

Dimensions of Social Exclusion

For Sen (2000:6) social exclusion occurs at various levels and in various forms; **Unfavourable Exclusion;** It refers to a situation when people are kept out or left out from the social development processes. The former untouchables of India had been unfavourably excluded.

Unfavourable Inclusion;

This is a condition when people are forcibly included on deeply unfavourable terms. The corporations giving the job of manual scavenging to dalits is the best example for unfavourable inclusion. It is also called adverse incorporation or adverse participation when people are engaged in exploitative conditions and on unequal terms of social participation

Active Exclusion;

Exclusion is the result of deliberate and explicit laws, policies, structures, norms and practices. People are explicitly excluded from opportunities and denied status. Active fostering of exclusion takes place here. The norms, values and practices of the society is biased against dalits and women.

Passive Exclusion;

While there are no apparent and deliberate attempts to exclude, the structures, processes and interactions will result in exclusion. There are invisible forms of barrier like glass ceiling that prevent the growth of certain excluded groups such as women, disables and dalits. Passive development of exclusion results from circumstances; deprivation comes through social processes. Exclusion due to macro socio economic processes leading to unemployment of the young and the less skilled is a case for passive exclusion.

Constitutive Relevance of Social Exclusion;

Exclusion and deprivation have an intrinsic importance of their own. For instance, not being able to relate to others and to take part in the life of the community can directly impoverish a person's life, in addition to the further deprivation it may generate.

Social Exclusion of "instrumental importance": The exclusion in itself is not impoverishing, but can lead to impoverishment of human life (Thorat, 2007: 9).¹

Manifestations of Exclusion

Sen (2000:44) discusses the diverse ways in which social exclusion can cause deprivation and poverty.

1. *Inequality and Relational Poverty:* In the context of western countries where absolute poverty is rare, relational poverty exists very much. It results from inability to be part of a community because of deprivations. Because of the consumption styles taking part in the life of the community may be rendered much more expensive. This is also becoming a problem in developing economies. Reversal of fortunes also renders people suffer from this part of exclusion.

2. *Labour Market Exclusions:* "The freedom to participate in labour markets has a basic role in social living and can have both constitutive relevance and instrumental importance". People need to fully participate in the labour market without exploitation and bondage.

3. *Credit Market Exclusions:* The excluded people are denied of access to credit that will empower them towards asset building and income generation.

4. *Gender-related Exclusions and Inequality:* There is widespread prevalence of gender inequality that puts women in unfavourable conditions. The case of missing women in this century is alarming pointing to the magnitude of gender exclusions.

5. *Health Care:* Large sections of the population have been excluded from the public health services of the State in many countries. Moreover, the developing countries and regions are deprived of the modern health facilities due to non availability and high cost of medicine.

6. *Food Market and Poverty:* A large number of people face shortage of food while the go downs of their countries are overflowing with food grains. This is due to lack of

purchasing power of the poor people. Almost half of all Indian children are, undernourished, despite there being no food shortage in India.

To Conclude

The contribution of Amartya Sen to the emerging concept of Social exclusion is significant as it will lead to the development of the concept in the context of the developing nations. With the thrust of capability and rights based approach to social exclusion, Sen has focussed on the institutional and structural processes of social exclusion. His emphasis on non monetary aspects of exclusion is particularly relevant to India as most of its population have been facing exclusion based on social and cultural identities.

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GANDHIAN THOUGHTS OF ECONOMICS**Introduction**

Gandhian economics is a school of economic thought based on the socio-economic principles expounded by Indian leader Mohandas Gandhi. It is largely characterised by its affinity to the principles and objectives of socialism, but with a rejection of class war and promotion of socio-economic harmony. Gandhi's economic ideas also aim to promote spiritual development and harmony with a rejection of materialism. The term "Gandhian economics" was coined by J. C. Kumarappa, a close supporter of Gandhi.[1]

Gandhi's economic ideas

Gandhi's thinking on socio-economic issues was greatly influenced by the American writer Henry David Thoreau. Throughout his life, Gandhi sought to develop ways to fight India's extreme poverty, backwardness and socio-economic challenges as a part of his wider involvement in the Indian independence movement.

Gandhi's championing of Swadeshi and non-cooperation were centred on the principles of economic self-sufficiency. Gandhi sought to target European-made clothing and other products as not only a symbol of British colonialism but also the source of mass unemployment and poverty, as European industrial goods had left many millions of India's workers, craftsmen and women without a means of living. By championing homespun khadi clothing and Indian-made goods, Gandhi sought to incorporate peaceful civil resistance as a means of promoting national self-sufficiency.

Gandhi led farmers of Champaran and Kheda in a satyagraha (civil disobedience and tax resistance) against the mill owners and landlords supported by the British government in an effort to end oppressive taxation and other policies that forced the farmers and workers to defend their economic rights. A major part of this rebellion was a commitment from the farmers to end caste discrimination and oppressive social practices against women while launching a co-operative effort to promote education, health care and self-sufficiency by producing their own clothes and food. Gandhi and his followers also founded numerous ashrams in India (Gandhi had pioneered the ashram settlement in South Africa).

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The concept of an ashram has been compared with the commune, where its inhabitants would seek to produce their own food, clothing and means of living, while promoting a lifestyle of self-sufficiency, personal and spiritual development and working for wider social development. The ashrams included small farms and houses constructed by the inhabitants themselves. All inhabitants were expected to help in any task necessary, promoting the values of equality. Gandhi also espoused the notion of "trusteeship," which centred on denying material pursuits and coveting of wealth, with practitioners acting as "trustees" of other individuals and the community in their management of economic resources and property.

Contrary to many Indian socialists and communists, Gandhi was averse to all notions of class warfare and concepts of class-based revolution, which he saw as causes of social violence and disharmony. Gandhi's concept of egalitarianism was centred on the preservation of human dignity rather than material development.

Some of Gandhi's closest supporters and admirers included industrialists such as Ghanshyamdas Birla, Ambalal Sarabhai, Jamnalal Bajaj and J. R. D. Tata, who adopted several of Gandhi's progressive ideas in managing labour relations while also personally participating in Gandhi's ashrams and socio-political work.

Social Justice and Equality

Gandhi has often quoted that if mankind was to progress and to realize the ideals of equality and brotherhood, it must act on the principle of paying the highest attention to the prime needs of the weakest sections of the population. Therefore any exercise on economic planning on a national scale would be futile without uplifting these most vulnerable sections of the society in a direct manner. In the ultimate analysis, it is the quality of the human being that has to be raised, refined and consolidated. In other words, economic planning is for the citizen, and not the citizen for national planning. Everybody should be given the right to earn according to his capacity using just means. The rich should serve the society after satisfying his needs and not merely enjoy his life.

Non-violent Rural Economy

Gandhian economics places importance to means of achieving the aim of development and this means must be non-violent, ethical and truthful in all economic spheres. In order to achieve this means he advocated trusteeship, decentralization of economic activities, labour intensive technology and priority to weaker sections. Gandhi

claims that to be non-violent an Individual needs to have a rural mindedness. It also helps in thinking of our necessities of our household in terms of rural mindedness.

The revival of the economy is made possible only when it is free from exploitation, so according to Gandhi industrialization on a mass-scale will lead to passive or active exploitation of the people as the problem of competition and marketing comes in. Gandhi believes that for an economy to be self-contained, it should manufacture mainly for its use even if that necessitates the use of modern machines and tools, provided it is not used as a means of exploitation of others.

Modern interpretations

The proximity of Gandhian economic thought to socialism has also evoked criticism from the advocates of free-market economics. To many, Gandhian economics represent an alternative to mainstream economic ideologies as a way to promote economic productivity without an emphasis on material pursuits or compromising human development. Gandhi's emphasis on peace, "trusteeship" and co-operation has been touted as an alternative to competition as well as conflict between different economic and income classes in societies. Gandhian focus on human development is also seen as an effective emphasis on the eradication of poverty, social conflict and backwardness in developing nations. Gandhian socio-economic ideas have gained the interest and attention of an increasing number of people across the world.

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ECONOMIC IDEAS OF AMARTYA SEN

Indian economist Amartya Sen, the first Asian to win the Nobel prize in Economics has spent his career studying poverty, famine, and the distribution of wealth in a society. The field is known as welfare or development economics, and no one who works in it has ever won a Nobel prize before. He gained recognition for his studies of the 1974 famine in Bangladesh. His work has challenged the common view that food shortage is the major cause of famine. He has won acclaim as "conscience keeper" of the world of economics by probing into ethical and philosophical questions relating to inequality and causes of poverty and famine.

Amartya Sen: "It is really economics dealing with assessment of how well things are going for the members of the society. That is the central thing about welfare economics. That is, if you want to say that things have turned out to be terribly bad in some situation, then to explain why that evaluation, why that judgment, why that assessment would be appropriate."

The Royal Swedish Academy of Sciences says Sen has had a particular interest in the most impoverished members of a society. It says by combining tools from economics and philosophy, Shri Sen restored an ethical dimension to the discussion of vital economic problems.

Sen was candid about India's economic reforms and felt that despite overall economic growth, there was evidence that economic expansion was not reaching the least fortunate in the society. A versatile economist, Sen's prolific writings ranged from choice of technique, poverty, famine and inequality. Analysing causes of famine and starvation, Sen demonstrated that traditional analysis focussing on food supply is "theoretically defective, empirically inept and dangerously misleading" in terms of policy.

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Gandhian Economic Thought and Its Relevance to New Economic Policy

Introduction

Mahatma Gandhi was not conventional economist like Adam Smith, Alfred Marshall, J.M. Keynes, etc., He did not compose voluminous treaties on economic ideology. In his seminal essay 'Hind swaraj' and several lectures, articles and editorials in 'Young india' 'Harijan' and 'Indian opinion', He made references to the kind of economic system, he considered as ideal for India. He advocated certain policies with regard to the development of Indian agriculture, industries, Swadeshi, etc.

Gandhi was not a professional economist. Nor had he any desire to write any systematic work on economic analysis he was primarily interested in India and its problems he was aware of the socio-economic consequences of the British rule in India and wanted to remedy the ills caused by the foreign rulers. The English took away the raw materials from India, utilized them in their industries in England and brought the manufactured goods to be sold in Indian markets. In their bid to develop their own industries, the Britishers exploited Indian resources and destroyed Indian cottage industries. This resulted in widespread poverty and unemployment in India. Now Gandhi believed that the western pattern of economic growth will not solve the kind of problems which India faced. Capitalistic method of production not only aggravates the problem of unemployment but also neglects human values. The problem has to be tackled through the development of village and cottage industries. Moreover, religious leader as Gandhi was, he preferred to bring economic changes in a truthful and non-violent manner. In nutshell, Gandhi wanted to rebuilt Indian economy on purely Indian pattern. It is in this background that the economic ideas of Gandhi are to be understood. In his economic thought, Gandhi was greatly influenced by Ruskin's *Unto this last*. From this book, he learnt a) that the good of the individual is contained in the good of all, b) that a lawyer's work has the same value as

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the barber's in as much as all have the same right of earning their livelihood from their work, and c) that a life of labour, i.e., the life of the tiller of the soil and the handicraftsman is the life worth living. Further, Gandhi was also inspired by the ideas of Thoreau, Tolstoy and Kropotkin. Tolstoy's principles of simplicity, asceticism and equalitarianism became a part of Gandhi's philosophy. Besides, Indians scriptures (Gita and Upnishads) and Indian saints (Kabir, Mira, Nanak, etc) also left a deep impression on Gandhi's mind.

Economic Philosophy

Gandhi viewed life as a whole and not in its isolated compartments. According to Indian scriptures there are four aspects of an individual's life: Artha (money), Kama (desire), Dharma (righteousness), and Moksha (liberation). These aspects are interrelated and therefore all of them should be harmoniously developed. Money is required to satisfy certain basic requirements of life and the satisfaction of basic requirements is the pre-condition for all progress. But it is not the end in itself. Man's aim is not to satisfy to multiply worldly desires and engage his whole life in acquiring wealth to satisfy these desires. The goal of life is to control desire and transform it (through righteousness) into liberation. Thus, economics, which deals with only one aspect, i.e., money, should be studied along with psychology, religion, and mysticism, dealing with Karma, Dharma and Moksha respectively. True happiness lies in the all round development of human personality and in living a full life. Gandhian economic philosophy of life, is contained in the following principles. It is on these principles that he wanted to build the ideal socialist society.

Three Phases of Gandhi's Economic Thought

The economic ideas of Gandhiji developed in three phases: a) the negative phase upto 1919 during which he criticized the western pattern of economic development and adopted a non-materialistic attitude which is embodied in his book *Hind Swaraj* (1909). b) the positive phase (1919-1934): During this phase, he presented an alternative to the western civilization in the ideal of *Swadeshi*. c) the constructive phase (1934-1948): In this phase, Gandhi became more practical. He gave a constructive programme for village regeneration and put forward the ideal of *Sarvodaya*.

Estimate

Gandhi was not an economist in the professional sense. His economic ideas lack systematization and lay scattered here and there in his writings. He attempted no economic analysis and presented no theoretical system. In fact, Gandhi never received any training in economics, nor he studied the writings of the western economists. He only studied Marx and that too late in his life during his detention period in 1942. His reaction was that if he were to write *Capital*, he would have written it in a simple and less sophisticated way. Thus, in such conditions, no work on economics containing technical knowledge on the subject and having analytical value was expected from Gandhi. Whatever he wrote or spoke on economics was the natural outburst of his ethico-philosophical thought and was not adopted from any book.

Gandhi had no intention to write on theoretical economics. He was a practical idealist and was immediately interested in solving the problems of poverty and inequality in his country. The solution he suggested called for a socio-economic revolution through non-violent means. To achieve the objective, the country must act according to sarvodaya principles. Now, as far as Gandian economic philosophy as contained in the sarvodaya ideal is concerned, there is nothing wrong in it. But the question is: is the solution practical? To expect that the rich would shed their acquisitive tendencies and would help their poor brethren to ameliorate their conditions is to live in fantasy. Commenting upon the contemporary situation of India, Brahmanand Prasad wrote: 'imagining the plight of the poor in a situation where in spite of the acceptance of sarvodaya principles, the rich are unable to free themselves from the greed and lust for wealth and production does not expand appreciably due to obsolete methods of production. It would be a disastrous situation.' Universalising the idea of non-violence, the hope that all the countries would undergo a change of heart and would follow the path of non-violence is mere wishful thinking.

Despite the generally inoperative nature of Gandian philosophy, Gandhi must be credited for emphasising the role of small scale industries and agriculture in the economic development of an economy. Almost all the economists recognise the importance small scale industries and the need for their decentralization in an overpopulated and rural based underdeveloped country. Gandhi also correctly realized that in such an economy, reorganization and revitalization of agriculture is a pre-condition to economic development.

Conclusion

Gandhiji was not only a leader who guided the country to independence through a non-violent struggle, but was a person with a deep insight into the social as well as the economic aspects of life. The Gandhian formulation with regard to the economic system will not be dragging us backward rather it will carry us to progress. Gandhiji has been critic of modern civilization but he agreed with everything which was not against humanity. He was against the concept of centralized mode of production based on economy of scale utilizing modern industrial technologies in the form of centralized factories and industries as he felt that this would deprive a large number of people of the decentralized method of production.

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Amartya Sen's Welfare Economics

Introduction

Sen's main aim of economics should be welfare to the people. He discussed famine, poverty, entitlement, capability, etc. and added a new light to the old ideas. The idea of free economy is the appendix of Darwin's concept of survival of the fittest cannot be accepted as social welfare. In their Nobel citation, the Royal Swedish Academy of Sciences stated: "Amartya Sen has made several key contributions to the research on fundamental problems in welfare economics. His contributions range from purely axiomatic theory, over definitions of welfare indices, to empirical studies of famine".

In order to make utility a useful welfare index, the welfare economists primarily assumed cardinal measurement of utility. This assumption ensures interpersonal comparison of utility and easy aggregation of individual utility levels. When aggregation of individual utility level is possible, application of sum-ranking principle also becomes possible. The principle states that if we add all the utility levels derived by different individuals in the society, the sum total will give us the aggregate welfare level of the society.

Sen's Ten Propositions in Welfare Economics

Sen's excellence in symbolic logic and in the use of the axiomatic approach is quite well-known. Though it is difficult, to categorise his ideas as pertaining to one particular school political economy, yet Sen is popular for having created exalted position for himself with a special paradigm in welfare economics particularly in explaining the relation between poverty and human development. Joan Robinson, in "*The Accumulation of Capital*" (1956), treated welfare economics as great elaboration and refinement of the theory of index number (p. 390). But Sen supplemented that 'there is no golden rule index numbers'. The contributions of Sen can be put in the form of inter-connected set of ten propositions wherein one can see a basic unity in the propositions which together sought to link welfare economics with the interests of poor people and poor countries. They are:

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- ❖ Welfare economics be resuscitated by increasing its informational background, inducting, generally or partially, marginal utility and interpersonal comparisons, introducing weak ordering, rejecting the Pareto criterion, and bringing in generally acceptable ethical considerations in the form of axioms which is alternative to those founded on utilitarianism and/or on Pareto optimality.
- ❖ Welfare economics should not treat the initial distributions as a parameter.
- ❖ The decisions on social choices (welfare) should give the greatest weight to the lowest strata of society (after Rawls, Sen favoured such rule). Ethical norms or rules must be used for functioning of society based on universally acceptable decisions.
- ❖ Welfare economics should pay attention to the issues relating to the development of capabilities of human beings;
- ❖ Market mechanism is inadequate and insufficient to achieve the result of capability development of the human beings in developing countries. The actual level of well-being of human beings is conditioned by the level of development of their capabilities (given the market opportunities and supported by State efforts).
- ❖ The possible ethical norm is that of obtaining minimum equal capabilities for all human beings.
- ❖ The obtaining of minimum capabilities for all human being and assurance of entitlements under all situations for the same should be the goal of state (society) policy.
- ❖ Famines (resulting in large scale deaths) are not due to aggregate deficiency in the production/supply of foodgrains or due to excess population in relation to production of foodgrains. They are often due to speculative hoarding, high prices due to inflation information and communication gaps due to absence of freedom, mal-distributions and absence of entitlements for food on the part of the vulnerable population.
- ❖ Famines are less probable in democracies as against dictatorships, as the former has less communication and information gaps than the latter and the former has more scope for expressing free opinions and enquiries capable of influencing decisions.

- Ø Poverty eradication must consider the distribution: 'parameter(s) below the poverty line. The lower is the measure of poverty, the higher is the ratio of the mean consumption of people below the poverty line and the less skewed the distribution of consumption below the poverty line.

Welfare of an individual according to Sen is individual choice and individual liberty (a new axiom introduced into welfare economics as argued by John Stuart Mill). Here, his work on Collective Choice and Social Welfare (CCSW) has turned out to be highly influential drawing the ideas of rights and liberty into the domain of social choice. By this emphasis, Sen became a strong defender of individual liberty and valuing it more than Pareto axiom.

Sen displayed technical virtuosity in branching the impasse in new welfare economics by mounting three pronged attack: (1) Welfare judgments in social decision are mostly political and necessarily put restrictions on people's preferences. (2) He showed the relevance of interpersonal comparisons in making social choice. 3) 'Sen brought in the facts of real world into welfare discussions: (a) by differentiating between basic values and non-basic values; (b) by showing the actual relevance of facts in deciding questions of non-basic' values; and (c) by pointing out that basic values are vulnerable to criticism due to their capacity, their changeability and often their unsuspected grounding in beliefs about the real world which are either false or doubtful. His wide research into poverty famines and human deprivation re-grounded in the freedom he obtained by breaking the constructed limits of the old fashioned 'new welfare economics'.

Conclusion

The central direction in his work on welfare economics has been to induct the perspective and interest of the poor as the central component in this branch of economics. Sen is a humanist and he believed that ethics, morality and humanism, value judgement should be the fundamental principles of economics. Welfare of men, women and children must be taken into consideration by the economists, planners and policy-makers. The State must have a positive role in the economic development. Development means eradication for clothings, shelters and above all freedom. This is the philosophy of Sen in welfare economics.

Economic Thoughts of Mahatma Gandhi & Mwl. Julius Nyerere

1.1 The Life and Career of Mahatma Gandhi

Mahatma Gandhi was born on 2nd October 1869 in Porbandar, Kathiawad to a politician father, Karamchand Uttamchand and a religiously devout mother, Putalibai. Educated in India and London, Gandhi became a lawyer and enrolled at the High Court in 1891. He practiced his law career briefly in India and then relocated to South Africa. While in South Africa, Gandhi started struggling with racism quite actively. His confrontation with racism in South Africa provided a challenging context for the development of his idea of *Satyagraha* (holding fast to the truth), a method of nonviolent, non-cooperative resistance to the authorities. Later in 1915 Gandhi returned to India and spent his time struggling with the British for *Swaraji* (self-rule). His entire life was characterised by high degree of simplicity and self renunciation. In order to persuade his opponents often times he used a method of fasting. Gandhi's reformation ideas were inspired by several religious traditions, such as Hinduism (especially Vaishnava), Jainism, Islam and Christianity. Due to his reformation attitude he was jailed in several occasions. He died on 30 January 1948.

1.2 The Life and Career of Mwalimu JK Nyerere

Mwalimu Julius Kambarage Nyerere (1922 – 1999), the founder and first president of the United Republic of Tanzania, was born in a small village called Butiama in Musoma Region, in what was then the British colony of Tanganyika. Nyerere entered politics and founded TANU (Tanganyika African National Union) in 1954; a political party which led Tanzania main land, the then Tanganyika, to gain political independence from British colonial rule in 1961. He was elected as first President of Tanganyika in 1962. As head of a nation, Nyerere was committed to African liberation, offering sanctuary in Tanzania to many African freedom fighters especially in Southern Africa. His government emphasized on building egalitarian society, and used *Ujamaa* as its ideology. Nyerere resigned as Tanzania's president in 1985, and continued as head of the ruling party until 1990. Before his death

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on October 14th, 1999 he also played a major role in 1990's negotiations to end the ethnic violence in great lakes region- Burundi, Rwanda and in Democratic Republic of Congo.

1.3 Definition of Key Concepts

The term *economic thoughts* shall be used in this paper to refer to a systematic and rational reflection on our socioeconomic experiences, in order to find out how our economic system and our pattern of life can best be arranged to attain better quality of life and precision concerning actions. Thus, the aim of economic philosophy is to give a critical appraisal of beliefs; and serve as a tool for critical clarification of concepts, which we use, to ensure proper use.

The concept of *Ujamaa* refers to a non-pejorative ideology aiming at an objective truth as manifested in African socialistic philosophical thoughts, centred on the pursuit of equality, unity and human dignity as its logical conclusion. *Ujamaa* is Swahili word meaning familyhood.

African Socialism is an economic philosophy popular in Africa from the 1950s through the 1970s, proposed as an African alternative to both Western capitalism and Eastern socialism. From the beginning, African socialism assumed a role of promoting rapid economic development in independent Africa and alleviating colonial inequality and injustice character.

2.1 Nyerere & Gandhi: Salient Similarities in Their Economic Discourse

Mwalimu Julius Kambarage Nyerere's socialistic economic thoughts are manifest in most of his writings and public speeches. In most of these writings, his viewpoint is to break from the imperial capitalism, which is based on exploitation of man-by-man, and from western socialism as advocated by Karl Marx, with its inevitable class struggle. Nyerere propounded a new version of socialism with an aim to recapture the spirit of what it was to be African. In *Ujamaa - The Basis of African Socialism*, Nyerere describes socialism as an attitude of mind. He emphasised that in a socialist society it is the socialist attitude of mind, which is required to guarantee that people cares for each other's well-being, and not the rigid observance of a standard political prototype. From his explanation of what he considers as an appropriate African socialism, as well as his other writings and speeches, we identifies salient economic features, within which he builds his economic philosophy, a uniquely Tanzanian version of socialism.

i. Policy for Economic Development: Self-reliance policy vs. Village republic

In his conception of work and self-reliance as a policy for economic development, Nyerere argues that work is a fundamental defining mark of socialism and there can be no socialism without work (Kalumba 294). For him, every individual, except the sick, infants and aged are responsible to work to meet their needs and of those whose society expect from him. In *Arusha Declaration*, Part 3, Nyerere underscore the idea of self-reliance as a policy for economic development. He starts by discouraging undue dependency on foreign aids for development and he gives two reasons. First, we cannot get enough to meet our development needs; and second, excessive reliance on foreign funds reinforces dependence. He further argues that dependency on foreign funds endangers Tanzania's self-reliance and self-determination; the two necessary conditions for true independence. With these reasons, he resolved to promote self-reliance development oriented strategies.

The establishment of Ujamaa villages and education for self-reliance were among those strategies. In one occasion, Nyerere said, "Our education must therefore inculcate a sense of commitment to the total community, and help the pupils to accept the values appropriate to our kind of future [...]. Schools must become communities – and communities that practise the precepts of self-reliance [...]. Each school should have, as an integral part of it, a farm or workshop which provides a food eaten by the community, and makes some contribution to the total national income".

ii. Communal Ownership of Major Means of Production vs. Doctrine of Trusteeship

Another key economic idea of Nyerere is his conception of the traditional African ownership of major means of production especially land. In the traditional African society, land was communal property. This means that there was no exploitation of man-by-man through individual ownership of land. Nyerere argues that neither the land nor tools produce wealth. Likewise, neither the landlord nor the worker produce land; land is a gift of nature to humanity. Nyerere appeals to the set-up of the traditional African society where landownership was entrusted to the community. "The African's right to land was the right to use it: he had no other right to it, nor did it occur to him to try and claim one". Nyerere

firmly argue that we must resist the growth of parasites through private landownership. He advocates for traditional African socialism customs of land holding system to our modern society. That is, "a member of the society will be entitled to a piece of land on condition that he uses it. Unconditional, or 'freehold,' ownership of land (which leads to speculation and parasitism) must be abolished". Unlike in a capitalist society where one can own land privately and receives rent from those who use it, in the African socialism each person has to work to earn his or her living. Capitalist society allows one to own land privately and receives rent to make her ends meet, from those who use it, but in the traditional African society everyone was a worker and there was no other way of earning living for the community.

iii. **Universal Adult education vs. Constructive programs**

After independence Nyerere noticed that the biggest enemies for development of the country were poverty, diseases and ignorance. For the later, he initiated universal primary education across the country. On the eve of independence, 1960's illiteracy rate was 90%. This declined to 10% in 1980's following a successful implementation of primary education and national wide adult education

Likewise, Gandhi enumerated about eighteen programs aiming at uplifting the life of a common man, especially the poor masses in the villages. For him since great population of people in India is in the villages, the development programs and policies should focus on the villages and thus eliminate rural – urban economic divide. Some of the programs were: basic education, adult education, hygiene and health care provision, khadi and other village industries, propagation of national language, removal of untouchability, development of social infrastructures etc.

2.2 Evaluation

There are some criticisms, which I consider pertinent to Nyerere's economic thoughts. The most biting challenge of Nyerere's political thoughts is that Tanzania did not manage to build sustainable economy based on *Ujamaa* as a basis for development. Tanzania, as well as other nations elsewhere, which practiced socialist ideals, had to

borrow extensively from outside to sustain their economies. Ultimately, in 1980's the economic situation of African socialistic nations such as Tanzania, Ethiopia, and Ghana, become tense, and the only alternative was to yield for conditional financial assistance from the World Bank (WB) and the International Monetary Funds (IMF). Nevertheless, financial assistance from IMF/WB is conditional - subject to liberalisation the economy and privatisation of government owned industries and other investments. Liberalisation and privatisation marked the end of African socialistic ideals as far as economic life is concerned. Hence, *Ujamaa* had no strong economic base though it underscores social ethical principles.

In addition, Nyerere's argument that in the traditional African society, everybody was a worker, and there were no idlers or loiterers; thus, there were no parasitism is somewhat over generalised. Realistically speaking, the essence of work in the traditional African society varied from one society to the other and even from one person to the other. One needs only to point to the existence of aristocratic families in many of the Africa's traditional kingdom, to show that Nyerere's claim was somewhat a generalization. Gandhi's doctrine of trusteeship as well as Nyerere's economic philosophical thought on leadership code and communal ownership of properties fails to take cognisance of real situation on the ground. For example, Issa Shivji argues that while the bureaucracy in Tanzania accepted nationalisation rapidly as underscored in communal ownership of major means of production, it adopted the leadership code with reluctance, since the code undermines the role of self-interest. The code presupposes selfless leaders for its realisation. Equally, realisation of doctrine of trusteeship presupposes selfless capitalists! It seems to me that 'selfless attitude' needs a high moral ideal if it is to be attained. Since the element of self-interest is normally in the midst of human nature, then a desire for wealth accumulation is humanly desire, which requires gradual practice of moral ideals, and not simply law or political ideals, to overcome it.

3.0 Ending Remarks

I think that apart from the above and any other possible limitations on Gandhi and Nyerere's philosophical economic thoughts, much a great deal of practical knowledge

relevant for our time can be derived from them. Of most important to me, I find enormous moral lessons on the meaning of human being. For example, both African socialism, based on *Ujamaa*, and the doctrine of trusteeship tries to understand the value of human dignity, the most precious in the material and social world. Both (*Ujamaa* and doctrine of trusteeship) reject capitalism as well as western socialism, and underscore a socio-economic system, which recognises equality, unity and dignity for all the people irrespective of race, nationality, religion, wealth or any other social condition.

Moreover, their critique on material capitalism seems to me very appropriate in the ongoing globalisation process, which is capitalistic in nature. For example, both Gandhi and Nyerere emphasised that world development should be man centred. The on going economic liberalisation and privatisation in developing nations have brought mixed results: few people appropriate the profits resulting from the improvement of technology and business opportunities, while majority are experiencing abject poverty more than ever before. If their ideals of human centred development are refined and incorporated in the process of privatisation and economic liberalisation, world economic prosperity may attain a better human face and become a global common good. Gandhi and Nyerere's economic literature is a witness of thoughts based on careful reflection of one's life experience. For instance, motivated by the view that education is a tool for liberation from deprivation as well as a tool for critical evaluation of oneself, Nyerere appropriately evaluated the beliefs enshrined in the traditional African society, and managed to come up with a fitting version of socialism for Tanzania. In this way they laid a strong foundation for addressing some socioeconomic problems we frequently encounter these days such as: ethnic biases, sexism and poverty problems; problems that are so prevalent almost in all developing states.

ECONOMIC IDEAS OF MAHATMA GANDHI: THEIR RELEVANCE OF TODAY

Basic ideas of Gandhian economics

It may be noted here that scholars have rarely made any painstaking effort to write well planned books on what has come to be generally recognised as Gandhian economics. The economic ideas of Mahatma Gandhi used to find expression chiefly in "Young India" and "Harijan", the weeklies he himself edited in the period between 1920s and 1940s and also in his speeches and answers to questions put by visitors to him. Mahatma Gandhi's economic ideas basically emanated from his strong urge to remove country-wide poverty and distress and reduce the gap between poverty and prosperity. His ideas should, however, be viewed more as a clear economic philosophy than as well defined economic theories.

In the Gandhian action plan of economic programme, (i) "the villages should be made as much self-sufficient and self reliant as practicable; (ii) the administration and economic structure should be decentralised and planning framed and implemented at grass root level; (iii) Small-scale and village industries, especially cottage units in spinning and weaving should be highly encouraged and mechanisation of industry avoided; (iv) rural small scale agriculture must be improved; (v) income-inequalities should be reduced by raising income level among the poor and by changing the attitude and motivation of the rich; and (vi) Capitalists and big businessmen have to serve as "Trustees" for the whole community."

Philosophical base of Gandhian ideas

Before we go into the analysis of Mahatma Gandhi's economic ideas, it is important to see the philosophical base on which these ideas are built up. It is only then that we can properly appreciate the contents of his action programme for economic well being of society.

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While Ruskin's book, "Unto this Last" influenced Gandhiji's basic philosophy that the good of an individual and the good of society go together and that all labour whether that of barber or a lawyer has the same dignity, it is Tolstoy's "Bread Theory of Labour" that inspired him to strongly believe that no man was free from the obligation of producing the elementary necessities of life with his physical labour. Thoroughly convinced at this approach of thought Mahatma Gandhi himself confessed in these words—"I do not draw any distinction between economics and ethics.... economics that hurt the moral well being of an individual or a nation is immoral and sinful. The economics that permits one country to prey upon another is immoral. It is sinful to eat American wheat and let my neighbour down for want of customers."

Such philosophical bent of thinking as revealed from the above, clearly brings out the nature and type of material mix that has come to structure the Gandhian economic design. It is this ethical aspect that has kept Mahatma Gandhi away from the English classical school of thought. He also rejected the class conflict theory of Karl Marx and passionately wanted the existence of a harmonious living of different income classes of society. Not surprisingly, therefore, Mahatma Gandhi advocated the concept of trusteeship as an instrument of reducing the gulf between poverty and prosperity so that an ideal pattern of income distribution comes about in the society. Naturally, his economic ideas would more speak of normative than positive aspects of modern economic theory. Gandhian economics has, therefore, to be understood and analysed in this perspective and, hence, it is only natural that its relevance to Indian economy of today would likewise be limited.

Revitalisation of Rural Economy and Khadi Industry

The huge size of unemployment in the countryside deeply worried Mahatma Gandhi. Apart from the poor agricultural productivity, the rural people remain out of work during the lean season of agriculture. Gandhiji emphasised the development of village industries as an effective remedy. Due to seasonal nature of agriculture, Mahatma Gandhi argues, rural industries alone can provide an effective remedy against enforced idleness over a

period of 4-6 months for the farm workers. He realised that for a basically agricultural country like India, the development of rural economy would mean development of the country itself. Hence, self-sufficiency of villages is an important element in the Gandhian design of reform.

Mahatma Gandhi's advocacy for village and cottage industries and specially for Khadi industries certainly continues its relevance in Indian economy for all through the fifty years of Independence. During this long period the problem of poverty and widespread unemployment particularly in rural India could not be solved. Agriculture is still heavily over-burdened with surplus labour and characterised by huge size of disguised unemployment due to absence of rural employment avenue. A renewed attention is being seriously paid now to revive and revitalise the sick sector of Khadi and village industries in order to increase the incomes of rural poor and provide employment opportunity to idle agricultural labourers in the lean season and to totally unemployed rural youths.

Gandhiji on Decentralisation and Sarvodaya

The core contents of Gandhian economics relate to village self sufficiency, removal of income inequality and poverty and providing work to the unemployed through countrywide set up of cottage and village industries. Such scheme of decentralised production would, however, require a large measure of decentralisation of administration. However, Mahatma Gandhi did not rule out the necessity of a central control or direction. "What he meant was that a large part of planning could emerge from the grassroots and could be implemented by local bodies operating under the general direction of central bodies. The main question was one of discovering the right balance between the measure of decentralisation that was desirable and the extent of central management that would be needed."

Under the Sarvodaya philosophy of Mahatma Gandhi, self-sufficient and self-governing village communities should form the basis of the country's socio-political organisation. Each village must manufacture its required finished goods and produce the

foodgrains needed and there should not remain idle hands. This could ensure proper utilisation of village resources and employment to people. There could not be a concentration of economic power and overcrowding in manufacturing centres for employment or socio-political and ecological problems. Under such a set up, each village would be a self-governing republic.

Conclusion

In spite of Gandhian economics inviting severe criticism and Gandhiji being dubbed as impractical idealist and even the leading men around him not strongly upholding his economic ideas, the later thoughts on India's economic development have certainly been greatly influenced by it. Mahatma Gandhi clearly visualised that development of the country was not possible without a growing household sector. This was proved in the early plan period of post-independence era when high prices and shortage of mass consumption goods developed due to other lines of production not contributory to household sector. The so-called general education that the students get today has alienated them from the rural way of life and has resulted in their migration to urban areas in search of white collar jobs and the warmth of city life. It has not only aggravated urban economy but has drained out talents from rural areas. It has been felt now necessary to revitalise and develop the village and small industries relevant to rural input base. This is what Mahatma Gandhi wanted and what the planners have rediscovered today. The Indian Five Year Plans are giving due importance to agricultural development and various programmes for eradication of rural poverty and creation of employment opportunities to bring people above the poverty line. Rural upliftment schemes, advocated by Mahatma Gandhi— removal of poverty, better sanitation, water supply, education— are all being pursued through minimum needs programme. The advocacy of Gandhiji for decentralisation of political and economic power and the Panchayati Raj System has been revived and revitalised with greater powers and larger function particularly in the wake of the 73rd and 74th Constitution Amendment in India in the recent times. One could only add here that as long as development of villages would mean development of India, the relevance of Gandhian economy will continue to survive.

PERSPECTIVES OF COOPERATIVE THOUGHTS IN GANDHIAN ECONOMICS

Introduction:

Many social thinkers from west and in India gave a twist to cooperative philosophy. The history of India is an open sage of many heroic personalities who were thrown up during the British period to lead destinies of India towards early emancipation. Among these stalwarts, Gandhiji is prominent leader. Mohandas Karamchand Gandhi (1869-1948) has a multi-dimensional and magnificent personality. He was a great political and spiritual leader and also a social thinker. Though, he was not a professional economist, he gave a set of economic ideas which are sharp in contrast against the traditional economics of the west. The economic ideas of Gandhi and his followers may collectively be called Gandhian economics. Gandhi considered economics as a practical science as it suggested measure for maximizing human welfare and satisfaction. He laid great emphasis in human values and condemned the monetary basis of human relations. This paper mainly focuses the widespread cooperative thoughts of Gandhi which are scattered through his speeches and writings and its applicability in the present scenario of market based open economy.

Equality and Equity:

George Jacob Holyoke, a famous British cooperator observes, cooperation touches no man's fortune; seeks no plunder; causes no disturbance in society; gives no trouble to statesman; it enters into no secret association; it needs no trade unions to protect its interest; it contemplates no violence; it accepts no gift; nor ask for any favour; it keeps no terms with the idle and it will break no faith with the industries. It means self-help and self-dependence. The Gandhian economics hope to achieve a national maximum level

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of living within the shortest possible time and aims at removal of concentration of the income and wealth with justice and equity. Considering the various aspects of life in totality, he urges upon economics to be conducive to social justice, equity and human welfare. The application of Gandhian ideas to the protest problem of our economy have become particularly more significant today with the objective of attaining social justice, equity, eradication of poverty, reducing of social and economic inequalities and creating better opportunities for the weaker sections of the society.

Service to community:

The proximity of Gandhian economic thought to socialism has also evoked criticism from the advocates of free market economics. Gandhi's emphasis on peace, trusteeship and cooperation has been touted as an alternative to competition as well as conflict between different economic and income classes in societies. Gandhian focus of human development is also seen as an effective emphasis on the eradication of poverty, social conflict and backwardness in developing nations. Gandhian socio-economic ideas have gained the interest and attention of an increasing number of people across the world.

Aims at socio-economic change:

Two important social principles for Gandhi were central to his thinking: Sarvodaya (the welfare of all) and Antodaya (the welfare of the least). To introduce the changes in social framework as well as in economic setup, cooperatives as a dynamic social movement can play a vital role. It would be an error to think of the cooperative movement as merely a form of business organization. Its roots go deeper. It is imbedded in the common recognition by the participations of the desirability of improving the condition that general agreement among them as to how that improvement can be best is effected, it combines both vision and techniques. It is therefore imperative to realize that co-operative movement is educative aspect can be expected, from co-operative as a movement as well as a form of organization. Democracy implies sovereignty of the people. A plan in the democratic country must carry behind it the sanction of the people. It has to seek to

improve the condition without causing acute social complications or disruption in the economy. Sariya Committee (1961) was alert to recognize the significance of the cooperatives in this context and it declared that the cooperative society has an important role to play as the most suitable medium for the democratization of the economic planning. In India, through out the ages, the people and communities worked together on an informal cooperative basis with regard to their religious, social, economic and cultural life. Cooperation permeated other sphere of life, viz, economic, moral or ethical and Social. From the economic stand point cooperatives are engaged in securing for their members services of various socio economic activities in the consolidation of holdings, the establishment of irrigation schemes, the contouring of land, the requirement of technical knowledge, the administration of credit, the buying of fertilizers, pesticides, seeds, health and medical care of education. Cooperation provides not only economic advantages to members but also confers a number of social benefits to the society. Cooperation has a philosophy of life and mission of its own. Its moral movement, the cooperative spirit will help to make better man and better society in the country, where tradition wisdom and value has been respected.

Conclusion:

Human development flourishes when individuals engage in cooperative, mutually respectful relation that can thrive only when excessive difference in status power and wealth are estimated. In Gandhiji's economic scheme, it is not economic progress in the material sense of the term which accounts. His was a special type of utilitarianism which could not be reckoned with the measuring rod of money; which was not based upon pure hedonism of pain and pleasure, but which was based upon basic human goodness and happiness arising out of common welfare. His was a concept of a social welfare function in which an individual's welfare was not independent of the welfare of the other members of the community, but was enhanced by them. The consciousness of kinship draws men together and calls for cooperation which rests upon natural human impulses. It is more than a system and stands for moral uplift, for honesty and the homely virtues. Gandhi continued to be the virtual guide and the inspiration of the economists. Now days, it is rare to find true Gandhian, who can cherish the ideas of cooperation. However, one would come across the true practitioner of cooperation, whatever the case; it is inseparable that cooperativism is devoid of Gandhianism.

ECONOMIC IDEAS OF MAHATMA GANDHI**Introduction**

Mahatma Gandhi is the unquestioned 20th century prophet of the world. His great concern for all the oppressed and depressed made him committed to serve these through his motherland. Gandhiji's economic ideas were governed by ethical and moral considerations. His stress on rural economy and emphasis on a simple life, coupled with his concern for universal well-being formed the foundation of his unique views on economics. Gandhiji's economic models were based largely on his understanding of the Indian situation.

A) Trusteeship Doctrine

Gandhiji was an ardent advocate of the spirit of non-possession and the elimination of inequality. According to him "if one had inherited a big fortune or had accumulated a large amount of money by earning profits from trade and industry, the entire amount did not belong to one, but to the entire community. In fact, one who had accumulated that amount, was entitled to only that part of it which was necessary for an honorable living-no better than that enjoyed by millions of others.". The rest of that accumulated wealth belonged to the entire nation and must be spend on the welfare of all. According to Gandhiji the rich and capitalist should consider themselves as the trustees. They should appropriate for themselves no more than fair rerun for the services rendered and should surrender the rest to the society for its welfare.

B) Industrialization

Gandhiji was a sharp critic of large scale industrialization. He was fully convinced that the large scale production was responsible for many socio-economic evils. Gandhiji was favor of decentralized economy, an economy in which the worker would be his own master. In such an economy, the chances for the exploitation of the worker and of violence would be reduced to nil. His belief was particularly strong in the context of the in Indian economy. India has plenty of human resources but the capital

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resources were very poor. With a view to absorbing the surplus manpower it was essential to adopt those methods of production which would be labor-absorbing. Mahatma Gandhi was not against the use of all sorts of machines. He objected the use of labor-saving machinery. He was in favor of cottage and small rural industries which provide more employment opportunity.

C) Sarvodaya.

Gandhian philosophy of Sarvodaya-welfare of all-is based on the an ancient scriptures and tradition of India. The 'Sarvodaya' means uplift of all. It also gives meaning good of all 'service to all'. Gandhiji wanted the revival of ancient village communities with sarvodaya, by the way of prosperous agriculture, decentralized industry and small scale co-operative organizations. He also wanted that there should be participation of people at all levels. He declared that the "real India was to be found in the villages and not in the towns". According to Gandhiji ideal village must be order line structure and it should have fruit trees, Dharmashala and a small dispensary, villages should be self-sufficient in food and clothing, the roads and worship places should be clean. It should be well protected against robbers and wild animals, villages should have public hall, a school, theater hall, play grounds, cattle sheds, and efficient water supply, rural activities may be organized on co-operative basis of rural administration should be in the hands of panchayats, and they must have all the powers, caste system should be abolished.

D) Food and Population

During the Bengal famine there was acute shortage of food throughout India. In order to solve the food problem Gandhiji suggested some measures that is every persons including military persons should curtail their requirements of food and to the minimum level, flower gardens should be utilized for food production, black marketing should be avoided, proper irrigation facilities should be expanded by the government and exports of food items should be stopped.

E. Gandhiji's view's on Population.

Gandhiji realized the problem of population explosion. So, he advocated population control by way of birth control through Brahmacharya or self-control, he felt it was "infallible sovereign remedy". In his opinion, the use of contraceptives for population

control in India would make the middle class male population imbecile through abuse of the creative function. For this he opposed use of contraceptive. He wanted the propagation of sex education, Gandhiji did not accepted the birth control for solving the problem of food shortage, " he had a opinion that proper land system, better agriculture, and a supplementary industries, India is capable of supporting twice as many people as there are to-day" Gandhiji believed that man must earn his own living by his own labour, if all the people work and earn their bread, there may not be any shortage of food and clothing, people would be more wealthy and happy, there would be no misery and no problem of food shortage. Gandhiji's law of bread labour has universally recognized as the most fundamental in all religious books.

F. Gandhiji's ideas on Prohibition

According to Gandhiji the use of coffee, tea, tobacco and alcohol were detrimental to the mental, physical and moral development of an individual. In his opinion, the use of liquor was disease rather than a vice. He had an opinion that the enactment of legislative laws, creation of public opinion against liquor, refreshment rooms for harmless drinks can reduce the use of liquor.

G. Gandhian socialism

Gandhiji was neither in favor of capitalism nor communism. Gandhism and socialism, is having a lot of differences, Gandhism treats human beings as the most important while communism and socialism, treats material prosperity as the most significant. Hence foreign trade does not fit into Gandhism but it fits into socialism.

Gandhian system is based on moral and spiritual forces, that is, on truth, and non-violence, on the development of individual expression and freedom of thought. He wanted the establishment of order which would be based on the principles of non-violence and truth. Accordingly, he presented the scheme of Sarvodaya which meant all around development of the individual community and the country. Gandhiji had a soft corner for the poor and the down trodden. He wanted a new social order in which the poor would get

a just and equitable share in the gift of nature and would have the freedom of enjoying the fruits of their labour.

Conclusion.

Gandhiji's economic ideas did not lead to any theory or dogma. Since Gandhiji had never been a student of economics, in spite of that Gandhiji was a practical economist in giving solutions to the problems of Indian economy. Gandhiji's knowledge of Indian problems and their solution was so clear that whatever he said or spoke, has now become a source of inspiration not only to Indian economists but also to the economists on other parts of the world. His theory of Trusteeship and the concept of dignity of labor has their own place in the field of economics. Gandhiji was not only a practical economist. But his socialism or communism recognized the freedom of the individual and was based on non-violence. Gandhiji's chief contribution to Indian economic thought has been his insistence on the establishment of socio-economic and political order on philosophical foundations. Both Gandhi and Marx were a great force in modern history, but Marx was a scientific materialist, Gandhiji was a practical idealist and spiritualist.

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REBIRTH OF GANDHIAN ECONOMIC THOUGHT

Introduction:

Gandhian Economics is based on ethical foundations. Gandhiji did not believe in any definite scheme of thought. Gandhi was not a professional economist. But he was a practical idealist. Gandhi's economic ideas were part of his general crusade against poverty inequality, unemployment and exploitation. Against socio-economic injustice and deteriorating moral standards. Gandhi was an economist of the masses. His approach was rooted in human dignity. His economic philosophy is a result of innumerable experiments which he conducted in the course of his life. His pragmatic approach gave a new direction to the existing socio-economic problems in the process of protecting human dignity.

Village Republics:

Gandhi was interested in developing the village4s as self-sufficient units. He opposed extensive use of machinery, urbanization and industrialization of machinery on the ground that it led to pauperization of villages and large scale unemployment in the country side. He thought the development of rural civilization on the basis of self-sufficient villages would result in the decentralization of political and economic power. He opposed modern industrial civilization because he wanted to protect the rural civilization.

On machinery:

Gandhi described machinery as great sin. Gandhi was opposed to machinery on large scale production. Gandhi was not against machinery in general. As, he put it, men go on saving labour, till thousands are without work and thrown on the open streets to die of starvation To day machinery merely helps a few to ride on the backs of millions. But he was against all destructive machinery. He welcomed such instruments and machinery that saved individual labour and lightened the burden of millions of cottagers. Gandhi was aware of the menace of technological unemployment. He emphasized the labour intensive

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methods of production in a country with surplus labour. In spite of more than two decades of planned and machine using and power driven economic development unemployment is still there and is growing.

Industrialism:

Gandhi considered industrialism as a curse on mankind. He thought industrialism depended entirely on a country's capacity to exploit. Gandhi opposed large-scale industrialism also on grounds of social justice. Machinery would enrich the few at the expense of the many. Gandhi hated privilege and monopoly. He said that machinery should not be used as a means of exploitation of others. There was a progressive change in his attitude to machinery and large scale production. For example, in 1940, he visualized "electricity, ship building, ironworks, machine making and the existing side by side with village handicrafts".

Decentralization:

He advocated a decentralized economy. Production at a large number of places on a small scale. He wanted the revival and development of cottage industries. Mass production really does not help the masses. Gandhi believed that "an ideal constitution for India must be based on the co-ordinate village communities with their positive and direct democracy, non-violent cottage economy and human contacts". He thought only there "production was simultaneous with consumption and distribution and the vicious circle of money economy was absent". "Production was for immediate use and not for distant markets. The whole structure of society was founded on non-violence".

Village Sarvodaya

Sarvodaya means all round well being of all. The Sarvodaya plan provides the foundation on which the economic organisation of the nation striving for the ideal of socialism is to be built. Sarvodaya social order on the principle of non-violence, truth, love and co-operation. The Sarvodaya scheme includes; a) full attention to the cultivators and the labourers, b) the cultivators would organize these own committees and labourers would form their own unions. c) All persons would receive education, whether technical d) special attention would be provided to the development of village industries, sanitation and hygiene, hand-spinning would be carried out in every rural family e) economic equality

and communal harmony would be established. He should be basic object to develop the village in to complete republic.

Bread labour:

Gandhi realized the dignity of human labour. He believed that god created man to his bread by the sweat of his brow. Bread labour was the expression that Gandhi used to mean manual labour. Gandhian concept of bread labour to tell people to utilize their idle hours which in villages are equal to the working days of six months in the year. Gandhi preached manual labour and opposition machinery. Some critics have dubbed Gandhi as a medieval mystic who was trying to put back the clock of human progress.

The doctrine of trusteeship:

Gandhi was against the concentration and misuse of wealth. He said that the rich people who have accumulated wealth should distribute it for maximizing the welfare of the rest of the community. The rich people should not use their wealth arbitrarily, but for the benefits of others. Trusteeship is a means of transforming the capitalist order of society into a socialist one. The rich people will keep for much wealth is essential for a good standard of living. The rest would be meant for other in their society. Trusteeship will eliminate economic inequalities between the rich people and the poor people.

Constructive Programme:

Gandhiji had given a brief outline of constructive social activities he had in mind before the individual civil disobedience was launched in September 1940. Later, in December 1941, he published a fuller brochure entitled Constructive Programme: Its Meaning and Place explaining it as the "construction of Poorna Swaraj or complete independence by truthful and non-violent means." The 18 point programme included communal unity, removal of untouchability, prohibition, khadi and village industries, basic education, adult education, improving the status of women, promotion of national and regional languages, economic equality and role of students. The value of this documents lies in the fact that it illustrates the point that according to Gandhiji every sound political philosophy ought to have its corresponding component of constructive social work- one that contributes to the betterment of the lives of members of civil society.

Conclusion:

Gandhi had no intention to write on theoretical economics. He was a practical ideas and was immediately interested in solving the problems of poverty and inequality in his country. Despite the generally inoperative nature of Gandhian philosophy. Gandhi must be credited for emphasis the role of small scale industries and agriculture in the economic development of an economy. Almost all the economists recognize the importance of small scale industries and the need for there decentralization in an over populated and rural based underdeveloped country. Gandhi also correctly realists that in such an economy, re-organisation and revitalization of agriculture is a pre-condition to economic development.

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AMARTYA SEN'S KEY CONTRIBUTION TO WELFARE ECONOMICS

Introduction:

Amartya Sen has made a number of key contributions to the research on fundamental problems in welfare economics. His contribution range from axiomatic theory of the social choice, over-definition of welfare and poverty index, to empirical study of famine. In empirical studies, Sen's application of his theoretical approach have enhanced our understanding of the economic mechanism underlying famines. By combining tools from economics and philosophy, he has re-stored an ethical dimension to the discussion of vital economic problems.

Individual values and collective decision:

When there is general agreement, the choices made by society are uncontroversial when opinion differ the problem is find methods for bringing together different opinions, in decision which concerned every one. The theory of social choice is pre-occupied precisely with this link between individual, values and collective choice. Sen's seminal work, collective choice and social welfare published in 1970, offered an answer to the US economist Kenneth Arrow's impossibility Theorem. Arrow argued that it is impossible to devise a voting system with an outcome which is both rational and egalitarian. If it is rational allowing full harmonization of individual preference it may well be dictatorial and therefore non-egalitarian.

Arrow says in a democratic set-up there are five axioms like i) complete ordering, ii) non-dictatorship, iii) non-imposition, iv) irrelevant alternatives and v) voting paradox or majority rule. These axioms leads to impossibility of social welfare function. But Sen's has alleviated this pessimism. These are caused by inadequate basic education, a low level of health services, poor ownership pattern skewed social stratification and rising gender inequalities. He also argues that these variations in social opportunities can be reduced by political protests and opposition.

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Sen treated problems such as : majority rule, individual rights and the availability of information about individual welfare.

Individual rights:

A self evident pre-requisite for a collective decision making rule is that it should be "non-dictorial", that is it should not reflect the values of any single individual. A minimum requirement for protecting individual rights is that the rule should respect the individual preferences of atleast some people in atleast some dimension for instance regarding their personal sphere. Sen pointed to a fundamental dilemma by showing that no collective decision rule can fulfill such a mined requirement on individual rights and the other axioms in Arrow's impossibility theorem. This finding initiated an extensive. Scientific discussion about the extent to which a collective decision rule can be made consistent with a sphere of individual rights.

Index welfare and poverty:

A common measure of poverty in a society is the share of the population, H , with incomes below a certain pre-determined, poverty line. But the theoretical foundation for this kind of measure was unclear. It also ignored the degree of poverty among the poor, even a significant boost in the income of the poorest groups in society does not affect H as long as their income do not affect H as long as their incomes do not cross the poverty line. To remedy these deficiencies, sen postulated five reasonable axioms from which he derived a poverty index: $P=H (I + (1-I) G)$. Here, G is the Gini co-efficient and I is a measure (between 0 and 1) of the distribution of income, both computed only for the individuals below the poverty line. Relying on his earlier analysis of information about the welfare of single individuals. Sen clarified when the index can and should be applied; comparisons can, for example, be made even when data are problematic, which is often the case in poor countries where poverty indexes have their most intrinsic application. Sen's poverty index has subsequently been applied extensively by others. Three of the axioms he postulated have been used by those researchers who have proposed alternative indexes.

Development Economics:

In the realm of development economics, the fundamental stated objective has been to improve, if not maximize the welfare of the people at large and the disadvantaged in particular. Sen's contribution of economic development mentioned the following classification. a) planning and growth, b) poverty and famine, c) deprivations and human development d) institution and role of the state, and e) philosophy of progress. Sen's paradigm of development of economics is spread across these five spectra, and it would be interesting to identify the core that links these elements. In what follows, we attempt a revaluation of development economics in the contemporary world on the basis of Amartya sen's contribution to the subject.

For a period in the history of post-second world war, when development planning was viewed as the essential tool for state sponsored economic development in may third world countries, Sen's methodology of evaluation of projects on the basis of their social costs and benefits have greatly helped in assessing impact of development projects in terms of the benefits reaped by the target group in particular, and the economy in general, and highlighting the conflict and trade offs across social groups that these schemes have generated. His suggested methodology was widely used by development planners in devising the development policies in an otherwise non-market economic system as well as in mixed economies like India.

Conclusion:

Amartya Sen has focused on the poor, viewing them not as objects of pity requiring charitable hand-outs, but as disempowered fold needing empowerment. Amartya Sen described so far on some specific grounds like poverty, inequality, standard of living and famine belong to the realm of purely axiomatic theory as well as empirical study of famine. In this paper sen discuss how to prevent famine, or how to limit the effects of famine once it has occurred.

AMARTYA SEN- AS A NOBEL LAUREATE

INTRODUCTION

Amartya sen is the first Asian and the Indian economist who won the most prestigious Nobel Prize of 1998 for his outstanding contribution in the field of "Welfare Economics". He is one of the rare economists who have combined his theoretical works with the society and the changes that took place in the economy. Sen has given a new recognition to the ethical dimension of economics. Sen has made significant contributions various fields of economics particularly in four major fields, they are,

- i) Social choice
- ii) Inequality and poverty
- iii) Development theory especially on poverty and famine
- iv) Capability development.

SEN'S CONCEPT ON SOCIAL CHOICE

Sen's social choice theory is more dynamic and realistic. Sen's has led him, step by step, from the utilitarian formulation to axiomatic framework of collective decision. In explaining the basic ingredients of quest for an appropriate social welfare function and collective choice rule collective choice, Sen observed that in his formulation, Arrow has assumed social choice being based on a set of individual choices, which are reflexive, transitive and complete.

POVERTY AND INEQUALITY

Sen tried to establish a sophisticated measure/index of poverty, which takes into account the distribution inequality parameter. He has carried out massive work on poverty and inequality in India. The distribution of income/consumption among the persons below the poverty line is taken by Amartya sen to measure the poverty line. One has to assume that the initial distribution below the poverty line would remain more or less unchanged. The intuitive finding was that the more skewed the distribution below the poverty line, the

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larger would be the Sen Gap. Sen produced a neat formula, termed as the poverty measure, known as the Sen Index.

$$P = I + (1 - I) G H$$

Where P is the poverty index, I - is the measure of distribution, G is the Gini coefficient, and H is the head count proportion of the people below the poverty line. The procedure adopted by Sen, seems to be to treat the inequality measure above the poverty line and that the poverty line largely independent of each other. A reduction in the price index of the goods consumed by the poor would reduce poverty index and an increase in the price index of goods consumed by the poor would increase price index. Further, an increase in population of the poor would reduce the mean consumption and may also move up poverty line, if the production of wage goods is characterized by diminishing returns.

THE CONCEPT OF CAPABILITY

The concept of capabilities developed by Sen has been cited as a better index of well-being than commodities or utilities. Capability, as defined by Sen, is the ability to transform Rawlsian primary goods to the achievement of well-being. Rawlsian primary goods are "things that every rational man is presumed to want, and include income and wealth", the basic liberties, freedom of movement and choice of occupation, powers and prerogatives of offices and positions and responsibilities, and the social bases of self-respect. Primary goods are, thus, "general purpose means of resources useful for the pursuit of different ideas of the good that the individuals may have".

Capability of human being is his ability of functioning in different capacities in a society such as to enable him to achieve the components or the constitutes of his well-being. Such functioning ability concretely implies access to adequate and nutritional food, some measure of general and probably technical education, medical and health care facilities, and a measure of security regarding the availability of the above. Sen has helped to induct indicators regarding the above in the human development index. A separate capability index for different countries has also been developed. Capability includes also an environment of freedom if choice and ability to make use of the various freedoms. Capability is taken for granted in conventional welfare economics but in many countries, even in rich societies, all human beings do not have the ability to enjoy the opportunities provided by societies. Sen considered capability is prior to the attainment of the desired

welfare states of individuals. Sen has gone on to argue that poverty is a result of capability failures. Sen has a wide ranging critique of conventional welfare economics on account of neglect of the capability dimension.

CONCLUSION

Amartya Sen, more than just an economist, is an ethical philosopher. He is a lover of freedom and a humanist. He has focused on the poor, viewing them not as object of pity requiring charitable hand-outs but as disempowered fold needing empowerment. Educations, health, nutrition, gender equality, safety nets in times of distress, all are needed to empower people. Sen proves very brilliantly that human development is a pre-condition of sustainable economic development. Sen's contributions touch the poverty stricken people living all over the world. So names of Sen will remember century after century not as Nobel Laureates but as humanists.

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MAHATMA GANDHI – AS AN ECONOMIST

INTRODUCTION:

Mahatma Gandhi who was a great Indian freedom fighter, and celebrated National Leader had certain positive economic ideas. His thinking on Socio-economic issues was greatly influenced by the American writer Henry David Thoreau. Throughout his life, Gandhi sought to develop ways to fight India's extreme poverty, backwardness and socio-economic challenges as a part of his wider involvement in the Indian independence movement. Gandhiji's championing of swadeshi and non co operation were centered on the principles of economic self. Sufficiency. Gandhi sought to target European- made clothing and other products as not only a symbol of British colonialism but also the source of mass unemployment and poverty.

ECONOMIC IDEAS OF GANDHI:

All the economic ideas of Mahatma Gandhi developed in three distinct phases. In the first phase he rejected western civilization, method of production, use of machinery, etc., the second phase witnessed the Swadeshi Movement, and third phase was a practical one in which he evolved the ideal of sarvodaya; and prepared a concrete programme for the regeneration of village economy, revitalization of village industries and decentralization of village industries and decentralization of productive organization.

ECONOMY OF NON-VIOLENT:

To mahatma, there was no industry and no human activity without a certain amount of violence,; but what he wanted was to make sincere efforts to minimize it. His firm belief was that nature produced enough for the satisfaction of the wants of all people, and

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if everybody took only that much which was sufficient for him, there would be no pauperism and starvation. He felt that those who had commodities at their disposal or under their possession, had no right to possess anything unless the millions of hungry and poor fed and clothed; and this called for an adjustment of wants.

Mahatma explains that non-violent occupation is fundamentally from violence, and which involves no exploitation or jealousy of others". He hoped that economics would help in eliminating poverty reducing the inequality of wealth and income; and would, at the same time, lay the foundation of a harmonious society in which the individual could, without any hindrance, develop his personality.

CONCEPT OF DECENTRALISATION:-

Gandhiji hoped that production in mills and factories in which there is a scope for illegal activities and fraud. So he advocated a decentralized economy that is production at a large number of places on a small scale or production in peoples homes, Mahatma hated privilege and monopoly. Decentralization was also essential for a nonviolent state of his conception.. He did not object to the centralization of heavy industries provided, they did not hamper the growth of cottage industries. He was of the opinion that village industry should be gradually mechanized. Machinery should help the people to work comfortably. He was against destructive machinery and against increasing mechanization because it displaced human labour, and created unemployment. Mahatma welcomed those machines which were helpful to workers, those machines which were helpful to workers, he believed that the machine to be retained should be such as it did not cripple the limbs of man.

RESTORATION OF VILLAGES:

It is clear that villages of earliest India were self sufficient and economically self dependent. Mahatma Gandhi repeatedly mentioned that the "real India was to be found in villages not in cities or Towns: He wanted every village to develop into a little republic. He evolved the ideal village Sarvodhya and enumerated the following condition for an ideal village:-

The village should have a small dispensary, fruit trees, self sufficient in food and clothing requirements. The roads should be kept clean. The lanes should have gutters for draining off water, and every village should be capable of depending from robbers and wild animals, and the village should have a school, a theater, a play ground, a public hall, and an efficient water supply arrangement. The village should grow money crops except tobacco, opium. In the village caste system should not be practiced. He laid emphasis on the revival of village industries-khadi, soap making, paper making, match making, hand grinding, Hand pounding, tanning in the village in order to solve the poverty problems.

CONCLUSION:

Gandhi had never studied economics but. Gandhi represented the world population and spoke in general and always in the language of love and service to entire mankind. His writings running into countless number of published volumes, both by him and on him, covering almost all aspects of human life touching upon each and every conceivable problem concerning social, political, economic, cultural, religious and all other aspects is understood as extremely relevant to the present day world as to the world of his own life time.

AMARTYA KUMAR SEN – AS A WELFARE ECONOMIST

INTRODUCTION

Amartya Kumar sen, the Noble Laureate of 1998 in Economics, in one of those rare intellectuals who sincerely cares for human interest in general and economics in particular. The spectrum of sen's thought process is so wide that it becomes very difficult to put everything together at one place. He writes on diverse economic issues like planning techniques, organizational aspects of agricultural sectors of developing economies the axiomatic theory of social choice, causes of poverty, famines and deprivations and so on. The royal Swedish Academy of Science in its citation, stated that Amartya's contributions to economics ranged from the axiomatic theory of social choice over definitions of famines. Sen's works cover vast areas of economic issues and his analysis, his policy measures for whatever areas he deals with, reflect the basic philosophy of his mind.

ECONOMICS OF AMARTYA SEN:

Sen advocated labour-using and land saving technology as a planning strategy for economic development in countries like India characterized by disguised unemployment and surplus labour (The choice of Technique, 1961). Sen Concentrates on the organizational aspect of Indian agricultural sector. On the basis of the data collected from few rural households of west Bengal, Amartya becomes sure about the efficiency of small and medium sized farms so far as land productivity is concerned. His articles initiated interesting debates from some other notable economists like, G.R. Saini, A.M. Khusro, Asoke Rudra, and Krishna Bhardwaj, who, from their empirical survey came to the opposite view, and advocated in favour of large farms so far as land productivity is concerned. In this context, perhaps, it would be not out of place if it is mentioned that the present author made an attempt to review the findings of sen. She collected data from 1760 farm households of six villages in Nadia District of West Bengal and came to the

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conclusion that small and medium sized farms are efficient than large farms. ('Size of Holding and Productivity', *Economic Weekly*, 196

Sen has attempted to solve the problem of the impasse created by Arrow in the famous 'Impossibility Theorem'. Sen shows that by using certain partial ordering, the problem of Arrow can be solved and a meaningful social welfare function can be built up for individual preferences. Sen is extremely well-organised and methodical in his treatment of modern algebra and social choice theory. Sen introduces value restrictions like that in each social choice situation. The views of the poor or the poorest of the poor should have more weight and/or should be the decisive criterion. (*Collective Choice and Social Welfare*, (1970).

Sen criticized utilitarianism identifying utility with well-being on two grounds. Well-being is not the only valuable thing and utility does not adequately represent well-being. The axiomatic basis is an alternative to those founded on utilitarianism and/or on the Pareto optimality norm.

The provision of minimum capabilities to the lowest strata of society is the basic pre-requirement of economic development. Capability of a human being is his ability of functioning in different capacities in society so as to enable him to achieve the components or the constituents of well-being. Sen's capability includes adequate and nutritious food, some measure of general and probably technical education, medical and health care facilities, and a measure of security regarding the availability of the above. (*Commodities and Capabilities*, 1985). In a democratic setup, the welfare policies pursued by the government put a check on famine, and in such a setup there are also more opportunities and more scope for expressions of free opinions and enquiries. On the contrary, a country under dictatorship suffers from communication gap carrying famines and starvations. But for enhancing the minimum level of capability, Sen encourages state participation in economic activities at least to a small extent (IEA Presidential Address, 1989). Through fifty years of planning, India has been able to build up new infrastructure to incorporate new and pragmatic thinking in its economic policies and the new welfare strategies. The economic thinking of Sen may serve as useful guide for its economic development.

ECONOMIC PHILOSOPHY OF SEN

This section is an attempt to evaluate the characteristic features of Sen's philosophy in the light of his economic ideas as discussed in the last section of the paper.

The framework of Sen's economics is solely based on the concepts of individual rights, freedom and choice. Sen's idea on rights and freedom is linked with his 'agency concept'. Sen distinguishes between well-being and agency. According to his philosophy, well-being refers to one's own well-being, while agency recognizes and respects the ability of a person to form goals, commitments and values, considerations of which may not be fully covered by his or her own well-being. Accordingly, agency does not mean that whatever a person values is per se acceptable. These valuations need to be assessed and evaluated by some criteria. Sen is highly critical of utility-based welfarist criteria which concentrate only a well-being aspect ignoring the agency aspect. Sen thinks that the perspective of freedom can be applied to the 'well-being' aspect as well as to the 'agency aspect'. This plurality, according to Sen is reduced to a single category in mainstream welfare economics reduced to a single category in mainstream welfare economics by: (a) considering freedom as only instrumentally valuable' (b) assuming that everyone's agency is exclusively geared to the pursuit of self-interest. He (1987) is critical and brings limitations of the principle of rationality based on 'self-interest' and 'maximisation of utility' principle.

CONCLUSION:

The remarkable achievement of Sen is to provide a break through in the new and old welfare economics by welfare judgments from existing facts of human deprivation. He makes a number of creative contributions in the discipline of economics as mentioned earlier.

INDIA'S DEVELOPMENT OF URBANIZATION IN TWO LEADERS VISION GANDHI AND AMERTHYA SEN

Introduction

"India live in its Villages" - Mahatma Gandhi.

"Rural economy is back bone of Indian Economy" - Mahatma Gandhi"

India is basically an agricultural country; most of them live in rural villages. In several states around 60 per cent of people lived in rural villages. 54 percentage of India's population is below 25 years of age and most of them live in rural areas with very little employment opportunities. Around 260 million people live on less than Rs.50/day. They mostly depend on agricultural and allied activities. These sectors do not provide adequate yield to them and there is lack of basic amenities in villages. An emerging growth of population has its causes of urbanization. The urbanization of slum creation is through via of rural migration. These routes of urbanization and slum creation is how to reduce on the base of bear economic thought of Mahatma Gandhi and Noble laureate Amartya sen are addressed on tills paper.

Economic thoughts of Mahatma Gandhi

Mahatma has provided the new economic system trusteeship, decentralization of economic activities, labour intensive technology and first priority to rural India. He explained that capitalism and mechanization would lead to unemployment, poverty and inequality. Communism would not survive as it was inhuman. We have seen the collapse of communism and also observe unemployment, inequality of income and instability of common man even rich a capitalist society. He advocated developing the rural economies with the development of agriculture and village industries. This way full employment for 80 per cent of Indian population can be achieved. Even in the world economy nearly 70 per cent of the world population is rural population. Their development can be made easy by the

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development of rural economies. There should be small scale and cottage industries in these areas. That will create just distribution of income without special efforts.

Amartya sen

He successfully bridges philosophy, ethics and economics in the process tackling some of the most critical themes of development. He is the first Indian - and the first Asian to win the Nobel Prize for economics. When Sen received the Nobel Prize in 1998, *he* was cited by the Swedish Royal Academy of sciences for restoring "an ethical dimension" to the discussion of vital economic problems and philosophy. *The* prize recognized Sen's contributions in the fields of social choice theory, welfare economics and economic measurement. He is credited with making inroads into the assessment of poverty and the evaluation of inequality- making possible better social welfare comparisons-and changing the way governments prevent and combat famines.

Conclusion.

As we concluded that father of nation and eminent economist of Mahatma and Sen's Ethics to implement through their suggested sectors increase the sustainability and stimulants to the rural economy. And better to implementation of our Former President A.P.J. Abdul Kalam's mission on PURA (Providing Urban amenities in Rural Areas) as well as our government should counsel to the Noble Laureate to framing of our policy making.

AMARTYA KUMAR SEN WORK AND CONTRIBUTION

Amartya Kumar Sen CH (Hon) (Bengali: Ormotto Kumar Shen) (born 3 November 1933) is the sole recipient of the 1998 Nobel Memorial Prize in Economic Science for his work on welfare economics. He is currently the Thomas W. Lamont University Professor and Professor of Economics and Philosophy at Harvard University. He is also a fellow of Trinity College, Cambridge. He is known as "Mother Teresa of Economics" for his work on famine, human development theory, welfare economics, the underlying mechanisms of poverty, gender inequality, and political liberalism.

RESEARCH

Sen's papers in the late 1960s and early 1970s helped develop the theory of social choice, which first came to prominence in the work by the American economist Kenneth Arrow, who, while working at the RAND Corporation, famously proved that all voting rules, be they majority rule or two thirds-majority or status quo, must inevitably conflict with some basic democratic norm. Sen's contribution to the literature was to show under what conditions Arrow's impossibility theorem would indeed come to pass as well as to extend and enrich the theory of social choice, informed by his interests in history of economic thought and philosophy.

In 1981, Sen published *Poverty and Famines: An Essay on Entitlement and Deprivation* (1981), a book in which he demonstrated that famine occurs not only from a lack of food, but from inequalities built into mechanisms for distributing food. Sen's interest in famine stemmed from personal experience. As a nine-year-old boy, he witnessed the Bengal famine of 1943, in which three million people perished. This staggering loss of life was unnecessary, Sen later concluded. He presents data that there was an adequate food supply in Bengal at the time, but particular groups of people including rural landless laborers and urban service providers like haircutters did not have the monetary means to acquire food as its price rose rapidly due to factors that include British military acquisition, panic buying, hoarding, and price gouging, all connected to the war in the region. In *Poverty and Famines*, Sen revealed that in many cases of famine, food supplies were not

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significantly reduced. In Bengal, for example, food production, while down on the previous year, was higher than in previous non-famine years. Thus, Sen points to a number of social and economic factors, such as declining wages, unemployment, rising food prices, and poor food-distribution systems. These issues led to starvation among certain groups in society. His capabilities approach focuses on positive freedom, a person's actual ability to be or do something, rather than on negative freedom approaches, which are common in economics and simply focuses on non-interference. In the Bengal famine, rural laborer's negative freedom to buy food was not affected. However, they still starved because they were not positively free to do anything, they did not have the functioning of nourishment, nor the capability to escape morbidity.

In addition to his important work on the causes of famines, Sen's work in the field of development economics has had considerable influence in the formulation of the Human Development Report, published by the United Nations Development

Programme. This annual publication that ranks countries on a variety of economic and social indicators owes much to the contributions by Sen among other social choice theorists in the area of economic measurement of poverty and inequality. Sen's revolutionary contribution to development economics and social indicators is the concept of 'capability' developed in his article "Equality of What". He argues that governments should be measured against the concrete capabilities of their citizens.

This is because top-down development will always trump human rights as long as the definition of terms remains in doubt (is a 'right' something that must be provided or something that simply cannot be taken away?). For instance, in the United States citizens have a hypothetical "right" to vote. To Sen, this concept is fairly empty. In order for citizens to have a capacity to vote, they first must have "functioning's". These "functioning's" can range from the very broad, such as the availability of education, to the very specific, such as transportation to the polls. Only when such barriers are removed can the citizen truly be said to act out of personal choice. It is up to the individual society to make the list of minimum capabilities guaranteed by that society. For an example of the "capabilities approach" in practice, see Martha Nussbaum's *Women and Human Development*.

He wrote a controversial article in *The New York Review of Books* entitled "More Than 100 Million Women Are Missing" (see *Missing women of Asia*), analyzing the mortality

impact of unequal rights between the genders in the developing world, particularly Asia. Other studies, such as one by Emily Oster, have argued that this is an overestimation, though Oster has recanted some of her conclusions.

Welfare economics seeks to evaluate economic policies in terms of their effects on the well-being of the community. Sen, who devoted his career to such issues, was called the "conscience of his profession". His influential monograph *Collective Choice and Social Welfare* (1970), which addressed problems related to individual rights (including formulation of the liberal paradox), justice and equity, majority rule, and the availability of information about individual conditions, inspired researchers to turn their attention to issues of basic welfare. Sen devised methods of measuring poverty that yielded useful information for improving economic conditions for the poor. For instance, his theoretical work on inequality provided an explanation for why there are fewer women than men in India and China despite the fact that in the West and in poor but medically unbiased countries, women have lower mortality rates at all ages, live longer, and make a slight majority of the population. Sen claimed that this skewed ratio results from the better health treatment and childhood opportunities afforded boys in those countries, as well as sex-specific abortion.

CONCLUSION:

Governments and international organizations handling food crises were influenced by Sen's work. His views encouraged policy makers to pay attention not only to alleviating immediate suffering but also to finding ways to replace the lost income of the poor, as, for example through public-works projects, and to maintain stable prices for food. A vigorous defender of political freedom, Sen believed that famines do not occur in functioning democracies because their leaders must be more responsive to the demands of the citizens. In order for economic growth to be achieved, he argued, social reforms, such as improvements in education and public health, must precede economic reform.

DEVELOPMENT ACCORDING TO MAHATMA GANDHI AND AMARTYA SEN

INTRODUCTION

Mohandas Karamchand Gandhi (2 October 1869 – 30 January 1948) was the pre-eminent political and spiritual leader of India during the Indian independence movement. He was the pioneer of satyagraha and total nonviolence, which led India to independence and inspired movements for civil rights and freedom across the world. Gandhi is commonly known around the world as Mahatma Gandhi (Great Soul). He is officially honoured in India as the Father of the Nation.

Amartya Kumar Sen, (born 3 November 1933) is an Indian economist, and the sole recipient of the 1998 Nobel Memorial Prize in Economic Sciences for his work on welfare economics.

Economic development is a sustainable increase in living standards means increased per capita income, better education and health as well as environmental protection.

Mahatma Gandhi was a critic of modern civilization. Modern civilization begins with scientific discoveries and technological progress. Gandhi correctly argues that the modern civilization is centered on the development of body and man's moral potentialities remain undermined. He writes: "Modern civilization's, true test lies in the fact that people living in it make bodily welfare the object of life." Machinery, "the chief symbol of the modern civilization," writes Gandhi "represents a great sin.

According to Mahatma Gandhi, India lives in its villages. Literally and from the social, economic and political perspectives the statement is valid even today. Around 60% of the population is living in rural areas. People in rural areas should have the same quality of life as is enjoyed by people living in sub urban and urban areas. Further there

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are cascading effects of poverty, unemployment, poor and inadequate infrastructure in rural areas on urban centres causing slums and consequential social and economic tensions manifesting in economic deprivation and urban poverty. Hence Rural Development which is concerned with economic growth and social justice, improvement in the living standard of the rural people by providing adequate and quality social services and minimum basic needs becomes essential. Naturally the development of the country depends on the development of villages. All the goods and services necessary for the village members should be grown within the village. In a word, every village should be a self-contained republic. If every village distributes its surplus produce to the poor villagers then there will not be the problem of poverty and starvation in the rural areas. The present strategy of rural development mainly focuses on poverty alleviation, better livelihood opportunities, provision of basic amenities and infrastructure facilities through innovative programmes of wage and self-employment.

Amartya Sen has been writing about development issues since the mid-1950s, most notably in the 1960s. As a young man he was influenced by Tagore, Nehru and his teachers in Calcutta and Cambridge. He generally adopted an anti-market, anti-neoclassical stance. In the period 1957-76 Sen worked on choice of techniques, surplus labour in Indian agriculture and the rationale for import substitution in Indian planning; a group of issues relating to "pervasive suboptimality", which led to development of the concept of shadow pricing. The second phase came from 1976 onwards when there was a shift from suboptimality to what can be termed "humane economics", which challenges conventional utility theory. It began with applied work on the Bengal famine, leading to the concept of "entitlement", and branched outwards into intensive studies of poverty and deprivation. The end result is the creation of a new set of concepts in economics and philosophy with human concerns at the centre. This by passes many central preoccupations of economists and shifts work on development on to new ground.

Sen's revolutionary contribution to development economics and social indicators is the concept of 'capability.' This approach contrasts with a common view that sees development purely in terms of GNP growth, and poverty purely as income-deprivation. It has been highly influential in development policy where it has shaped the evolution of the Human Development Index (HDI). Thereby the measurement includes the following

Life, Bodily Health, Bodily Integrity, Senses, Imagination, and Thought, Emotions, Practical Reason, Affiliation, Having the social bases of self-respect and non-humiliation, Other Species, Play, Being able to laugh, to play, to enjoy recreational activities, Control over one's Environment, Political and Material.

Sen describes five requirements that should ideally work together in order to bring true development. These include (1) political freedoms, (2) economic facilities, (3) social opportunities, (4) transparency guarantees and (5) protective security. Each of these distinct types of rights and opportunities helps to advance the general capability of a person. They may also serve to complement each other. Public policy to foster human capabilities and substantive freedoms in general can work through the promotion of these distinct but interrelated instrumental freedoms. In other words, the requirements for development can be described as an individual's ability to participate freely in the political process, the mechanisms and capacity to seek economic well-being, the networks and connections which make social integration possible, free access to reliable information sources, and structures which allow personal safety.

Conclusion

Mahatma Gandhi and Amartya Sen emphasized the alleviation poverty and unemployment thereby economic development. They concentrated on the decentralization of economic activities in order to go up in the growth path. Individual's contribution towards the national development was advocated by both Gandhi and Sen.

GANDHI AND GENDER DEVELOPMENT- SOME OBSERVATIONS

INTRODUCTION

When Gandhiji assumed India's leadership the average life span of an Indian woman was only twenty seven years. Babies and the pregnant women ran a high risk of dying young. Child marriage was very common and widows were in very large number. Only 2 percent of the women had any kind of education and women did not have an identity of their own. Women could not go out of the house unless accompanied by men and the face covered with cloth. It is in this context that we have to recognize the miracle of Gandhi's work. Gandhiji claimed that a woman is completely equal to a man and practiced it in strict sense. Thousands and millions of women, educated and illiterate, house wives and widows, students and elderly participated in the India's freedom movement because his influence. For Gandhiji, the freedom fight was not political alone; it was also an economic and social reform of a national proportion. After a couple of decades, this equality became very natural in India. This paper focuses mainly on importance of women, Gandhi works on women and its relevance.

WOMAN AND PROGRESS

Gandhiji always advocated a complete reform which he called "Sarvodaya" meaning comprehensive progress. He believed that the difference between men and women was only physical and has expressed several times in his writings that in many matters especially those of tolerance, patience, and sacrifice the Indian woman is superior to the male. Gandhiji declared that there is no school better than home and there is no teacher better than parents. He said men and women are equal, but not identical. "Intellectually, mentally, and spiritually, woman is equivalent to a male and she can participate in every activity." Indian society is a male dominated one. Gandhiji has illustrated in his autobiography how early in his marriage he too wanted to dominate his wife. He often said that paternal society is the root cause of inequality. He has written how ashamed he was of himself, and how he took care not to hurt her anymore for the

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rest of his life. Even though there was big gap between him and his wife intellectually, it did not affect their family life. He has said that Kasturba followed her husband more than was expected of her.

Women, urban and rural, educated and uneducated, Indian and foreign, were attracted to his ideas and deeds. While some like Sarojini Naidu, Lakshmi Menon, Sushila Nayyar and Rajkumari Amrit Kaur rose to prominence, there were thousands of unsung and unnoticed heroines of India who learnt the meaning of liberation from him and contributed with all their energy to the struggle for independence. Life sketches and reminiscences of women freedom-fighters give us glimpses of their crusade against injustice and inequality.

Woman and Social Service

Gandhiji struggled very hard to understand a woman's physical and mental pain. He believed that service has to be performed for self-fulfillment, not for public consumption or exhibition. He believed that the publicity given to one's social service actually decrements the value of the service. He tried very hard to eliminate job indignity and bias based on caste system. He tried to do the work of a barber, dhobi (washer man), and janitor to understand them and demonstrate that the work one does has no impact on one's status in the society. He helped wife with feeding, bathing, and toiletries of the infant. In western countries these days' men are encouraged to be with their wives during the delivery and the men are supposed to pitch in with diaper changing, etc. Gandhiji practiced this very modern concept 90 years ago in his own family. "Womanhood is not restricted to the kitchen", he opined and felt that "Only when the woman is liberated from the slavery of the kitchen, that her true spirit may be discovered". It does not mean that women should not cook, but only that household responsibilities be shared among men, women and children. He wanted women to outgrow the traditional responsibilities and participate in the affairs of nation. He criticized Indian's passion for male progeny. He said that as long as we don't consider girls as natural as our boys our nation will be in a dark eclipse.

Gandhi did not like Indian society's preference for a boy and a general neglect of a girl child. In fact, in most cases girl child is not allowed to be born. If born her survival is not ensured. If somehow she survives she is subjected to neglect. She does not get respect and the status she deserves equal to that of a boy. Given the frantic preference

for a male child in India every year about four million women risk lives and get illegal abortions done. Many pregnant women die in the process but their deaths are never reported by their family members or by those who carry out this sex selective abortions. Usha Thakkar expresses that Gandhi worked not only for the political emancipation of the nation, but for liberation of all the suppressed and oppressed sections of society. One of the noteworthy results of his life-work has been the awakening of women, which made them shed their deep-rooted sense of inferiority and rise to dignity and self-esteem. The welfare of the weaker sections of society was dear to his heart. He had no fears about the priority of social over political ends.

Rajkumari Amrit Kaur illustrates that it was but natural that the heart of a man who believed so firmly in Truth and Non-violence should go out in sympathy and understanding to all those who were oppressed or unjustly treated. It hurt him to think that woman whom he looked upon as 'the mother, maker and silent leader of man' should have so lost herself as to have become a mere chattel of man. Gandhiji was uncompromising in the matter of woman's rights. 'In my opinion she should labour under no legal disability not suffered by man. I should treat daughters and sons on a footing of perfect equality.' Those who tried to argue with him on the basis of what the great law-giver Manu is supposed to have said that 'for woman there can be no freedom' or what is contained in some texts in the Smritis met with scant attention. Such sayings or texts were not sacrosanct to him. They could 'command no respect from men who cherish the liberty of woman as their own and who regard her as the mother of the race.'

In describing the woman's role as householder and housekeeper, he goes even further in stressing the need for man and woman to "do the duty for which nature has destined us" by finding it "degrading, both for man and woman, (if) the woman should be prevailed upon or induced to leave the hearth and shoulder the rifle for the protection of that hearth. It is a reversion to barbarity and the beginning of the end. The contemporary argument for wages to be calculated for women's work at home and the need for economic independence for them to be truly able to act in their own interest overtakes by far Gandhi's traditional perceptions. Today's liberated woman would find his position almost totally unacceptable. They would argue that while women's special calling may be child nurturing, peace loving and preservationist they are capable of performing all tasks hitherto left to men.

Gandhi was not only a great political leader but a passionate lover of humanity. An implacable enemy of all injustice and inequalities, he was a friend of the lowly and the downtrodden. Harijans, women and the poor commanded his most tender attention. He had almost an instinctive understanding of women and their problems and had a deep abiding sympathy for them.

GANDHIJI'S CONTRIBUTION FOR BETTERMENT OF WOMEN IN INDIA

As we look back at the Indian history and compare the conditions of women before Gandhi's rise, and now, the progress we have made is quite enormous. A whole generation of women leaders came up influenced by Gandhi's vision. If today in India so many women can go to work in offices, educational institutions, and factories without fear or hesitation, the roots for such system were laid by Gandhiji and his followers. As mentioned earlier, Gandhiji formulated India's freedom struggle as a comprehensive plan for women's development. Even though a lot of inequalities remain in our society, there is a fundamental agreement that men and women are equal. As Indians, we can be very proud that the same cannot be claimed even by so called "advanced nations". But for us, political, economic and voting rights came so naturally through the constitution!

Social Inequalities

The poor people use little or nothing of this fine mill-cloth, while the expenditure for producing this has been partly paid out of the taxes paid by them. Comparatively, the richer man uses more cloth than the poor. Hence, their benefits from the public expenditure are much greater. As we have pointed out earlier, this mode of expenditure which enriches the rich man at the cost of the general public, which is the poorer section, leads to the lessening of national wealth; hence the mill production of cloth harms the economy of the country. It makes the rich richer and the poor poorer.

Distribution of Wealth

This must be done in a form in which it will distribute wealth, and will work in a satisfactory manner. Our problem is to give employment to 400 millions of people in such a way that everyone would get his own primary needs satisfied. That means our method of work has to be such which will distribute wealth in the process of producing wealth. Distribution and production if they do not go together or take place simultaneously, often lead to accumulation of wealth on the one side, and poverty and misery on the other.

The Way

Today, if Gandhi's agenda has fallen apart, it is due to Indian politics. The continued exploitation of women can be attributed to the degradation in moral values of the society, and utter poverty of our nation. We ignored the role of social service, job dignity, and self reliance. The only way to bring peace and happiness to mankind, and realizing the Economy that Gandhiji stands for, is to take up his programme of constructive work. Such an economy cannot be brought in by force from without. It needs co-operation and our willing submission to the conditions which will ultimately lead us to realize this Economy. Therefore, it demands our best, conscientious efforts. We cannot drift into it by merely floating easily down-stream. We have got to survive for it with all our strength of will, with a purposeful outlook on life and with a determination to achieve what we are after. If we do that we shall be contributing, not only to the welfare of our country, but towards the brotherhood of man/ womankind as a whole.

Despite the fight for gender equality there has not been perceptible change in the perception about women. A woman is still considered delicate. Her mild behaviour and nature is seen as a negative point.

Let the pursuit of power be not only aim of the women empowerment. It should be "total emancipation". No one can double the efforts made by Gandhi to empower women. He had attracted so many millions of not only literate but illiterate women without the power of state, without the modern information technology and offering in return only sweat, toil, and pain, is an exceptional feat! His insistence on **Women's education** is the first step in right direction. We still have miles to go to achieve our cherished goal to empower women.

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DEVELOPMENT IDEAS OF GANDHI AND THE PURA MODEL**INTRODUCTION**

Gandhi's economic ideas were governed by ethics, very much like everything in his life. All his ideas were humanitarian in nature and he believed that no policy is worth its implementation if it fails to uplift the general well being of mankind. Indeed he believed that economic and ethical questions were inseparable. Gandhi had an innate sympathy for the poor and deprived. He once said, 'Earth provides enough to satisfy every man's need, but not every man's greed.' Thus one needs to limit his wants and not become a slave to the ongoing desire for materialistic objects.

This article tries to discuss the various beliefs of Gandhi which were given by him to promote the economic conditions of India or a backward economy like it. Some of the main issues he addressed were:

POVERTY

Gandhi asserted that the growing poverty of the backward economies was the direct result of an excessive and indiscriminate preference for technical modernization. This is the basis for all the Gandhian strategies which are economic in nature. He opined, 'I am not against machinery as such but I am totally opposed to it when it masters us'. So he opposed it when instead of helping individuals, it created structural unemployment which leads to mass poverty. Thus the question that arises here is what the optimum speed of modernisation is, in an economy like India. The answer is the ratio between the current increment of the work force and the available supply of investible funds. This acts as the upper limit to the speed of modernization and lower limit to incremental employment-capital ratio, which is in turn determined by the mix of activities in which the investment is made. The greater the investment in technological activities, the lower the average incremental employment-capital ratio. The rise of capital intensive production seems to be the way to increase the rate of capital accumulation over the growth rate of labor force but that would also lead to rise in wage-income of the labor force and

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consequently a gradual fall in average level of earnings per worker as structural unemployment would settle in the economy. Gandhi gave the main sub-processes of such an economy as the replacement of traditional labor intensive activities by modern capital intensive activities; of traditional village clusters by capitalistic markets; of dispersed rural habitation by concentrated urban pattern of living. In the long run even the strategy of investing in the capital goods production fails due to the following consequences like increase in structural unemployment due to rise in capital intensive production; intensified neglect of the agricultural sector; neglect of investment needs of industries providing non-agricultural rural employment; excess supply of capital goods with inadequate purchasing power in rural areas and constricted consumer goods market.

SWARAJ AND THE SWADESHI MOVEMENT

Swaraj can mean generally self-governance or "home-rule". It lays stress on governance not by a hierarchical government, but self governance through individuals and community building. The focus is on political decentralization. It is a kind of Individualist Anarchism. Gandhi called the state a "soulless machine" which, ultimately, does the greatest harm to mankind. The corrupting influence of political power and his skepticism about the efficacy of the party systems of power politics lead him to believe that the state would abrogate the rights of the citizens and arrogate to itself the role of grand protector and demand abject acquiescence from them. He wanted a stateless society as according to him the overall impact of the state on the people is harmful. Thus he wanted each village to be independent in terms of governance and self sufficiency. This is what was brought forward by *Swadeshi* movement. *Swadeshi* means indigenous or home-grown. It is "a call to the consumer to be aware of the violence he is causing by supporting those industries that result in poverty and harm to workers."

THEORY OF TRUSTEESHIP

Gandhi believed wealthy ones could hold their riches 'in trust' and serve the society there from. It was a form of voluntary moral responsibility to act as a trustee for that part of the people. It helped industrial relations to be built on cooperation rather than conflict as it could also lead to profit-sharing and workers' participation in management. It was based on the beliefs on unequal distribution of ability and non-violence.

RURAL DEVELOPMENT

This inclusive concept of rural sector is necessary in order to fully appreciate the Gandhian pattern of thinking which pre-supposes the integration of rural-urban interaction foci with the rural sector and the transformation of these foci from their currently urban-serving nature to a village-serving nature. Gandhi emphasized the revival of the traditional community council as units performing modern community planning functions like controlling a) the disposal and allocation to various activities of the village land, 'the ownership' right being converted into the equivalent of well protected tendency rights, b) the utilization of 'surplus labour' available to the community for carrying out community works, c) planning the overall purchasing and marketing pattern of the community in the consultation with local farming and craft groups as well as the units of the cooperative agencies located in the central village of the local rural cluster.

PROVIDING URBAN AMENITIES IN RURAL AREAS (PURA MODEL)

Dr.A.P.J.Abdul Kalam outlined the concepts and strategy of PURA when he addressed the food security summit on 5th of February, 2004 for the economic upliftment of the villages. For our country to get the status of a developed nation, the GDP growth has to be gradually increased upto 10% and it also should be sustained for several years. PURA is a Neo-Gandhian approach to development. Gandhi wrote in Village Swaraj: "the British have exploited India through its cities. The latter have exploited the villages. The blood of the villages is the cement with which the edifice of the cities to run once again in the blood of the villages."

The objective of the PURA is to propel economic development without population transfers. Prof A.M.Khusro says that instead of moving human beings where infrastructure exists, it is better to take infrastructure to villages where human beings live.

PURA model involves four connectivities: physical, electronic, knowledge and thereby leading to economic connectivity to enhance the prosperity of cluster of villages in the rural areas. Under physical connectivity a group of 15-25 villages will be linked to each other by roads. These villages will have a ring road so that each one of them can make use of it. Besides roads provision of electricity and transfer facilities are included. Second is Digital connectivity which aims to link villages with modern telecommunication and information technology services. Thirdly, knowledge connectivity tries to establish on every

5 to 7 kms, of the circular ring road an education centre, a hospital etc. Fourthly, economic connectivity aims to establish within this group of villages good marketing facilities so that all the commodities of daily use can be procured and the rural people can sell their produce in these markets. In the PURA model there are 3 scenarios:

SCENARIO I: There is high connectivity level with urban-rural migration and low rural-urban migration which results to over optimal connectivity share per urban unit.

SCENARIO II: There is low connectivity level with urban-rural migration and high rural-urban migration which results to sub optimal connectivity.

SCENARIO III: the connectivity level is equal to urban-rural migration and rural-urban migration which results to zero net rural-urban migration. Thus 'the cities are capable of taking care of themselves, it is the villages we have to turn to.'

CONCLUSION

Gandhi's truly ethical policies are very impractical in nature due to the fact that they are effective only if taken up voluntarily which is not what usually human beings do. In economics it is believed that individuals' economic behavior either was, or should be, guided solely by self-interested preferences. And moral suasion would fail in the long run. Although, the Gandhian solution had difficulty in succeeding in many ways, Gandhian ideas hold their place in the economic literature.

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A K SEN'S VIEWS ON DEVELOPMENT AS FREEDOM

Introduction:

Development can be seen, it is argued here, as a process of expanding the real freedoms that people enjoy. Focusing on human freedoms contracts with narrower views of development, such as identifying the development with the growth of gross national products, or with the rise in personal incomes, or with the industrialization, or with technological advance, or with the social modernization. Growth of GNP or of individual incomes can, of course, be very important as means to expanding the freedoms enjoyed by the members of the society. But freedoms depend also on other determinants, such as social and economic arrangements (for example, facilities for educational, health care) as well as political and civil rights (for example, the liberty to participate in public discussions and scrutiny). Similarly, industrialization or technological progress or social modernization can substantially contribute to expanding human freedom, but freedom depends on other influences as well. If freedom is what development advances, then there is a major argument for concentrating on that over arching objective, rather than on some particular means, or some specially chosen list of instruments. Viewing development in terms of expanding substantive freedoms directs the attention to the ends that make development important, rather than merely to some of the means that} inter alia, play a prominent part in the process.

Development requires the removal of major sources of unfreedom: poverty as well as tyranny, poor economic opportunities as well as systematic social deprivation} neglect of public facilities as well as intolerance or over activity of repressive states. Despite unprecedented increases in overall opulence} the contemporary world denies.

Elementary freedoms to vast members perhaps even the majority of people. Some times the lack of substantive freedom relates directly to economic poverty which robs people to satisfy hunger, or to achieve sufficient nutrition, or to obtain remains for treatable illness, or the opportunity to be adequately clothed, or sheltered} or to enjoy the

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clean water, or sanitary facilities. In other cases, the unfreedom links closely to the lack of public facilities and social care, such as the absence of epidemiological programs, or of organized arrangements for health care, or educational facilities or of effective institutions for the maintenance of local peace and order. In still other cases, the violation of freedom results directly from a denial of political and civil liberties by authoritarian regimes and from imposed restrictions on the freedom to participate in social, political and economic life of the community.

Effectiveness and interconnections:

Freedom is central to the process of development for two distinct reasons.

- 1) The evaluative reason: assessment of progress has to be done primarily in terms of whether the freedoms that people have are enhanced;
- 2) The effectiveness reasons: achievement of development is thoroughly dependent on the free agency of people.

Political freedom and quality of life; in the concept of narrower views of development in terms of GNP or industrialization it is understood that the conducive atmosphere is very essential to attain the development. The conducive atmosphere includes the opportunity for a common man to participate in politics and so on.

Institutions and instrumental freedoms:

Five distinctive types of freedom, seen in an "instrumental" prospective, are particularly investigated in the empirical studies that follow. These include, (1) political freedoms, (2) economic facilities, (3) social opportunities, (4) transparency guarantees and (5) protective securities. Each of these distinct types of rights and opportunities helps to advance the general capabilities of a person. They may also serve to complement each other. Public policy to foster human capabilities and substantive freedoms in general can work through the promotion of these distinct but interrelated instrumental freedoms.

Conclusion:

Sen feels that freedoms are not only the primary ends of developments, they also among its principal means. In addition to acknowledging foundationally, the evaluative importance of freedom, we also have to understand the remarkable empirical connection that links freedoms of different kinds with one another. Political freedoms, (in the form of

free speech and elections) help to promote economic security. Social opportunities (in the form of education and health facilities) facilitate economic participation. Economic facilities (in the form of opportunities for participation in trade and production) can help to generate personal abundance as well as public resources for social facilities. Freedoms of different kinds can strengthen one another.

These empirical connections reinforce the valuational priorities. In terms of the medical distinction between "the patient" and "the agent", this freedom centered understanding of economics and the process of development is very much an agent-oriented view. With adequate social opportunities, individuals can effectively shape their own destiny and help each other. They need not be seen primarily as passive recipients of the benefits of cunning development programs. There is indeed a strong national for reorganizing the positive role of free and sustainable agency and even of constructive impatience.

Reference:

"Development as Freedom" - written by A.K. Sen.

AMARTYA SEN'S IDEA OF POVERTY

Introduction :

The first requirement of the concept of poverty is of a criterion as to *who* should be the focus of our concern. The specification of certain 'consumption norms', or of a 'poverty line', may do part of the job: 'the poor' are those people whose consumption standards fall short of the norms, or whose incomes lie below that line. It seems a bit grotesque to hold that the concept of poverty should be concerned only with the non-poor, and I take the liberty of dropping and the 'view' quoted in the first paragraph- without further ado. Alternative might, however, appear to be appealing, since it is broad-based and unrestrictive

POVERTY :

In 1981, Sen published *Poverty and Famines: An Essay on Entitlement and Deprivation* (1981), a book in which he demonstrated that famine occurs not only from a lack of food, but from inequalities built into mechanisms for distributing food. Sen's interest in famine stemmed from personal experience. As a nine-year-old boy, he witnessed the Bengal famine of 1943, in which three million people perished.

This staggering loss of life was unnecessary, Sen later concluded. He presents data that there was an adequate food supply in Bengal at the time, but particular groups of people including rural landless labourers and urban service providers like haircutters did not have the monetary means to acquire food as its price rose rapidly due to factors that include British military acquisition, panic buying, hoarding, and price gouging, all connected to the war in the region. In *Poverty and Famine*, Sen revealed that in many cases of famine, food supplies were not significantly reduced. In Bengal.

Conclusion :

Sen gives us a model for India as it is if a leader can combine Sen's democratic leadership structure with moral tactics, he will be able to take India forward in the Economic, political and social realms.

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DEVELOPMENT IDEA OF AMARTYA SEN

INTRODUCTION

The main focus of this work is one of the causation of starvation in General and of famines in particular. The basic approach Entitlement system is introduced in general terms.

Entitlement Relation: In 4 ways Entitlement Relations can be explained

- ❖ Trade-based Entitlement: one is entitled to own what obtains by trading something.
- ❖ Production Based Entitlement: One is entitled to own what he gets by arranging production
- ❖ Own-labour Entitlement: One is entitled to his own labour power.
- ❖ Inheritance and Transfer Entitlement: one is entitled to own what is willingly given to him by another, after death.
- ❖ Exchange Entitlement: In an economy with private ownership the trade, production or the combination of Trade & Production entitlement can be exchanged to the bundle of commodities that he need.

A person is having full exchange entitlement power for his commodity. Then how the starvation arises? Because of charity. Starvation arises in the absence of No-Entitlement transfers. Eg: charity.

iii) Trade Entitlement Failure:

Eg1. The Ethiopian pastoral nomad both eats the animal products directly and also sells animals to buy food grains.

Eg 2. Similarly a Bengali Fisherman does consume some fish, through for his survival he is dependent on grains – calories which he obtains at a favorable calorie exchange rate by selling fish a luxury.

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Eg 3. In Bengal famine of 1943 the people who died in front of well stocked food shops protected by the state were denied food because of lack of legal entitlement and not because their entitlement were violated.

SUGGESTION:

- ☞ Giving proper education, employment, opportunity & health are very important to improve the entitlement rights of the human beings
- ☞ Providing ration cards with free cost also improve the entitlement rights.
- ☞ Private economy can improve the entitlement rights.
- ☞ The government may give legal protection to the private ownership of commodities, and fixation of price individually, because it is the primitive right to fix the price which is more than their food and other requirements

CONCLUSION:

From the above explanation we can understand the concept entitlement which reduce and eradicate the problem of starvation.

REFERENCE:

- ☞ THE AMARTYA SEN & JEAN DREZE OMNIBUS

AMARTYA KUMAR SEN'S HUMAN DEVELOPMENT INDEX

INTRODUCTION

Amartya Kumar sen, an Indian economist and winner of the Nobel Prize was born on November 3, 1933 in Santiniketan west Bengal. Sen is the sole Recipient of the 1998 Nobel Memorial Prize in Economic Sciences for his work on Welfare Economics. He is currently the Thomas W.Lamont university Professor and Professor of Economics and Philosophy at Harvard university. He is also a fellow of Trinity College at the University of Cambridge.

He is known as "Mother Teresa of Economics" for his work on famine, human Development theory, welfare economics, the underlying mechanisms of Poverty, gender inequality, and Political liberalism.

From 1998 to 2004 he was Master of Trinity College. He became the first Indian academic to head an Oxbridge college. He is also a former honorary President of Oxfam. Sen developed an Index that takes into account other factors, such as how Poor the average Poor Person is and the distribution of Resource among the Poor. Mahbub Ul Haq developed and Index used by the united Nations to Measures the wealth of nations by their citizens living standards.

HUMAN DEVELOPMENT

The concept of human Development, UNDP Human Development Report (1997) describes it as "the Process of widening People's choices and the level of well-being they achieve are at the core of the notion of human Development."

Ever since the Publication of the Human Development Report 1990 under the guidance of Mahabul-ul-Haq, efforts have been made to devise and further refine measures of human Development.

MEASURES OF HUMAN DEVELOPMENT

Three measures have been developed. They are Human Development Index (HDI), Gender related Development Index (GDI) and Human Poverty Index (HPI).

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CALCULATION OF HUMAN DEVELOPMENT INDEX

Before calculating HDI, an Index for each of the three dimensions is created for this Purpose, Maximum and minimum values are chosen for each Indicator.

Performance in each dimension is expressed as a value between 0 and 1 by applying the following formula.

$$\text{Dimension Index} = \frac{\text{Actual Value} - \text{Minimum Value}}{\text{Maximum value} - \text{Minimum value}}$$

The HDI is calculated as a simple average of the dimension Indices.

Countries as reported in HDR 2007 /2008~ountries have been grouped under three categories:

1. Countries in the HDI range 0.8 and above are in the High Human Development group.
2. Countries in the HDI range 0.5 to 0.8 are in the range of medium Human Development group.
3. Countries in the HDI range less than 0.5 are in the Low Human Development group.

The data has been collected for 177 countries. Among them 70 countries were in the High Human Development range, 85 countries were in medium Human Development range and 22 countries. Were in Low Human Development Range. (India which was at No. 138 in HDI in 1994 has improved its positions to No 128 in 2005) Among, the High Performers during 1980-2005 can be considered as Iran, China, South Korea, Egypt and India, and to a certain extent, several medium HDI countries will enter the high HDI group and several low HDI countries will join the medium HDI range. This is a welcome development. India has improved its HDI index from 0.412 in 1980 to 0.619 in 2005. It is still a long way to go, before India would enter the High HDI group.

CONCLUSION

Early country is judged by the GNI Per capita income but now countries are judged by their HDI constructed by Amartya sen and others. Which not only reflect the economic status of a country but also reflect the social condition of the country. Credit goes to Amartya sen)

Development Thoughts of Gandhi

Mahatma Gandhi, the embodiment of truth and non-violence is the great thinker of modern times who added many new dimensions to the history of thought. He was not merely a philosopher or thinker rather a man of action who reacted with vigour to every problem-political, social and economic with truthful means. His thought is intensely practical and comprehensive. It is because of his multi-dimensional thought that the people around the world would have remained engaged in exploring, explaining and evaluating the relevance of Gandhian thought for the last five decades. But the more we explore the Gandhism, the more we feel ignorant and thus get involved in knowing about Gandhian thought and its relevance to new economic policy of India.

Gandhi's view on Technology

The liberal policy of foreign direct investment (FDI) was also one of the important measures of new economic reforms. During the 1980s and 1990s foreign direct investment was a key factor in shaping the world economy. FDI has now come to be widely recognized as major contributor to growth and development. India has sought to increase inflows of foreign direct investment with a much liberal policy since 1991 after four decades of cautious, if not always restrictive, attitude to it. The year 1991 saw a paradigm shift in Indian economic planning.

Foreign direct investment has now become a very important source of transfer of technology from foreign nations to developing countries. India has given red-carpet welcome to foreign technologies since 1991. Nehru was convinced that rapid development of Indian economy can be made only through big machinery and industrialization.

Contrary to that Gandhiji had a different view. He was opposed to mass production by big machines, rather he advocated a system where production is handled by masses. "we have no need for big mills and heavy machinery. If one machine does the work of a hundred men then where are we to employ those hundred men? In a proliferation of mechanized industries will surely lead to large scale unemployment".

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Gandhi's view on industrialization and choice of technique reflects the supreme concern for men. Gandhi had written that "there is no room for machines that would displace human labour and that would concentrate power in the few hands. Labour has its unique place in a cultured human family. Every machine that helps every individual has a place. But I must confess that I have never sat down to think out what machine can be". He was not against machinery as such, but he was certainly against all machinery designed for the exploitation of people. It is wrong to believe that Gandhi was against technology. He had no abjection to the use of mechanized power must available to every villager who wanted to use it. But he did not want science and machinery to produce goods and starve men.

Gandhi has a practical approach as he favours complex technology aimed at the eradication of poverty and the creation of employment. "Are you against all machinery?" Gandhi's answer to this question is an emphatic 'no'. Gandhi was by no means anti-technological. He opposes the indiscriminate multiplication of technology.

He was, in fact, never against industrialization, rather he was against the 'craze' for machinery and large scale industrialization with the help of indiscriminate technological modernization which may make the reduction of poverty more difficult. Elimination of mass poverty and unemployment in the shortest possible period was Gandhi's central concern and for achieving these objectives, he was "opposed to machinery which displaces labour and leaves it idle" and in this context he clearly wrote that "what I object to is the craze for machinery, not machinery as such".

Gandhi pleaded for decentralized industries relying chiefly on local resources and voluntary limitation of wants. Every industrialist employing certain number of workers has to look upon his industry not as his property but as a social trust.

Conclusion:

The path of the liberalization, privatization and globalization (LPG) that India adopted has definitely accelerated the growth of economy but. It can neither ensure over all developments nor can guarantee the vary independence of Indian industries While interpreting and re-interpreting Gandhi one must analyze the economic extension of his thought in accordance with the place and time. Our circumstances do not allow us to ignore Gandhi. There are number of dimensions in his thought. In many sense his thought are even more relevant today than his time.

ECONOMIC IDEAS OF GANDHIJI

INTRODUCTION

The economic ideas of Mahatma Gandhi and his followers are collectively called Gandhian Economics. Gandhiji himself was not a professional economist. He was a great political and spiritual leader. But consistent with his philosophy of truth and non-violence, he gave a set of economic ideas which are sharp in contrast against the traditional economics of the west.

J.C.Kumarappa, a follower of Mahatma Gandhi, has attempted to refine and restate Gandhian economics as a counter theory to the western economics and it is claimed to be more suitable and building up a more peaceful and state future.

ETHICS AND HUMAN WELFARE

The central theme of Gandhian Economics is "ethics". Human welfare is the basic idea of Gandhian economic thought. Gandhiji considered human being as wealth and not gold and silver. He said, "The final consummation of all wealth is in producing as many as possible, full-breadth, bright-eyed and happy-hearted human being. He considered a country to be richest if it nourished the greatest number of happy individuals. Thus in Gandhian economic thought man occupied a prominent position than wealth.

Gandhiji did not isolate economics from ethics. His economic ideas can collectively be called as "Ethical Economics". Economics should aim at material and moral progress of the society. It must help in producing and increasing wealth and also promote social justice and moral progress.

"An economics, that inculcates mammon-worship and enables the strong to amass wealth at the expense of the weak is a false and dismal science. In Gandhian

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thought, truth, morally and human values are considered above the value of money or material wealth. He provided out that we cannot make a distraction between economics and ethics. The value of an industry should be judged less by the dividends it pays to the share holders than by its effects on the body and soul of the people employed in it. According to him, the Economic law that man must buy in the cheapest market is one of the that man must buy in the cheapest market is one of the most inhuman laws made by economists. In 1921, Gandhiji wrote " Economics that hurts the moral well being of an individual or nation is immoral and therefore sinful.

SARVODAYA

Gandhiji wanted the revival of ancient village communities with prosperous agriculture and small industries with participation of people all levels. His earnest desire was that every village should be converted into a little self sufficient republic. His ideal of "Village Sarvodaya" implied that an ideal village must fulfill the following conditions.

1. The village should be neat and clean with all facilities.
2. There should be adequate water and provision for drainage
3. The village should have a school and a public hall.
4. provision should be made for Dharmasala, cattle shed e t c.
5. There should be a village dispensary
6. Rural activities should be organized on cooperative basis.
7. Rural administration should be carried by the village panchayats duly elected.
8. The village should be protected form robbers and wild animals.
9. A system of village guards must be made compulsory
10. There should be fruit trees in the village and only if space is available cash crops could be grown.
11. There should be total prohibition of liquor and consumption of any alcoholic and narcotics should be adjured.

12. There should be play ground facilities and compulsory education at the elementary level.
13. places of worship should be maintained neat and clean.
14. The caste system should be abolished

The sarvodaya philosophy is based on the values of freedom, equality, justice and fraternity. The sarvodaya state would respect all religions.

This type of rural living according to Gandhi is "Swaraj" or "Rama Rajya", Sarvodaya means welfare of all. Sarvodaya principle will ensure the greatest good to the number of the pathway for individual for regulated life and salvation through happy contented and pious life. It insists on decentralization of political and economic power. It follows the path of peace and non – violence.

BREAD LABOUR

Gandhiji had immense faith in the dignity of manual labour. Physical labour to him was a man's dignity, his sacred duty and obligations. The law of bread labour was propounded by T.M. Bondaref and popularized by Tolstoy. This law emphasizes that man must earn his bread by his own labour. If all people laboured for their bread, there would be enough food and clothing for all, there would be healthier and happier and there would be no problem of food shortage, no disease and no misery. Gandhiji strongly believed that without physical labour no one was entitled to get his food. He advised the rich also to do bodily labour for the bread.

SIMPLICITY

Mahatma Gandhi was against the multiplication of human wants. In order to lead a simple life – a life untouched by immorality, untruth and political gain, he did not want many things. He firmly believed that western materialism and industrialization had increased human wants. He always pleaded for a simple life, life of plain living and high thinking, so that the requirements of such a life could be satisfied easily. To Gandhiji, happiness lay in the curtailment of wants and not in their multiplication. As he observed, "The less you possess, the less you want, the better you are, better not for the enjoyment

of this life that the enjoyment of personal service to one 's fellow beings, service to which you dedicate yourself, body , soul and mind".

POPULATION

The most important problem which attracted the attention of Gandhiji was the rapid increase in population. Gandhiji opposed the idea of "Forced population control and the artificial limitations of birth. Gandhiji was in favour of birth control through self control or brahmacharya. He criticized those who argued that birth control was needed for solving the problem of over population and unemployment. He said, "in my opinion, a proper land system, better agriculture and a supplementary industry, this country is capable of supporting twice as many people are there today".

KHADI INDUSTRY

Gandhiji believed that multiplication of mills could not solve the problem of cloth supply. Therefore he stressed the development of khadi industry. For Gandhiji khadi was the symbol of unity of Indian humanity of its economic freedom and equality. Khadi means the decentralization of the necessities of human life. He believed that khadi industry would save millions of people from starvation and would supplement the earnings of poor people. To him the music of spinning wheel was sweeter and more profitable than harmonium. Gandhiji considered charka as a symbol of non violence and his was "Swaraj through spinning".

THE TRUTEESHIP DOCTRINE

Gandhiji remarked that the capitalist who had amassed a large sum of money was a thief. If a person had inherited a big fortune or had collected a large amount of money by way of trade and industry, the entire amount did not belong to him. It belonged to the entire society and must be spent on the welfare of all. He wanted to avoid a violent and bloody revolution by gearing a permanent stability of economic equality. He wanted the capitalists to be trustees and he enunciated the doctrine of trusteeship. All social property is meant for all people – rich or poor. Capitalists being trustees would take care of not only themselves but also of others. The workers would treat the capitalists as their benefactors and would keep faith in them. In this way there would be mutual trust and

confidence with the help of which the remarkable ideal of economic equality could be achieved. His entire ideology is summed up as follows :

1. "Trusteeship provides a means of transforming the present capitalist order of society into an egalitarian one. It gives no quarter to capitalism, but gives the present owning class the chance of reforming itself. It is based on the faith that human nature is never beyond redemption.
2. "It does not recognize any right of private ownership of property except in as much as it may be permitted by society for its welfare
3. "It does not exclude legislative regulation of the ownership and the use of the wealth.
4. "Thus, under state – regulate trusteeship, an individual will not be free to hold or use his wealth for selfish satisfaction or in disregard of the interest of society.
5. "Just as it is proposed to fix a decent minimum living wage, even so, a limit should be fixed for the maximum income that could be allowed to any person in society. The difference between such minimum and maximum incomes should be reasonable and equitable and variable from time to time so much so that tendency would be towards obliteration of the difference.
6. "Under the Gandhi an economic order the character of production will be determined by social necessity and not by personal whim or greed.

CONSTRUCTIVE PROGRAMME

Mahatma Gandhiji's constructive programme was a big undertaking which included 18 items enumerated below: Communal unity, removal of untouchability , prohibition, khadi, other village industries, village sanitation uplift of women, basic education, adult education , hygiene and health, economic equality, propagation of national language, provincial language, kisan, labour adivasis, lepers and students.

ASSESSMENT OF GANDHIAN ECONOMICS

Gandhian economics is very different from traditional economics, as it has no clear cut theory. Gandhi himself never studied any economics. He was unfamiliar with the

thought of Keynes or Marshall. He read Marx as late as 1942 during detention and his impression was that if he had to write "The capital", he would probably do it in a much simplified manner. It is natural that the traditional economists do not find Gandhian ideas scientific. Moreover, there are numerous contradictions in his thought which were brought about due to the evolution of his ideas as his personality matured. For instance, his extreme apathy to machinery, as evident in "Hind Swaraj", was considerably softened in his later years.

In assessing Gandhian thought, it all depends upon whether one agrees with the Gandhian postulates or not. If the critic agrees with simplicity, non-violence decentralization and ethical and moral considerations which form the basic of the Gandhian ideas, he would probably find that entire system of Gandhian thought is logical. Otherwise, the traditional economist will find that entire system of Gandhian thought is extremely lacking in coherence on such modern issues as public finance, the problems of defence and international trade, monetary management and economic planning. In Gandhiji's economics, there is a fundamental postulate that all countries would be organized on the non-violent pattern. Whether such a situation is practicable or not, is quite a different matter.

"The relationship between Gandhism and Socialism is interesting. Gandhi himself declared that he was a Socialist and his ideal of Sarvodaya was the traditional Indian Socialism. But technically, Gandhi is not a socialist. He would uphold private ownership of property by asking the capitalists to become the trustees of public property. At best, he asked them to be enlightened capitalists and uphold the welfare of workers at all costs.

From the Marxist point of view, Gandhian economics is reactionary in its outlook. Gandhi refused to recognize class struggle and the fact that history had developed from one stage to another and, as such, must pass on to the higher stage of Socialism from the present state of Capitalism. Like Sismondi Gandhi's solution of the problem of capitalist society consists in suspending material progress and technical inventions and to go back to a decentralize and simple system of economic organization. The Marxist charge is that Gandhi was trying to put the clock back and as such was unconsciously extending capitalist

and feudal interest. The most outspoken critiques of Gandian economics have come from the Indian Marxists.

Many socialist thinkers, specially J.B.Kripalani, Jai Prakash Narain and Ram Manohar lohia have accepted Gandian 'Sarvodaya' as the ideal of Indian Socialism. They hold that Praja Socialism is socialism plus Gandhism and believe that marxism was suitable to the Western industrial nations and as such is inapplicable to Indian conditions. The Indian variety of socialism suitable to a poor and agricultural country must necessarily follow the non – violent and decentralized theory of Praja Socialism has yet to be worked out, but these have been advanced by some Praja Socialist leaders in recent articles and speeches.

Yet another controversy that has sprung up recently, is due to the ideas of J.C.Kumarappa and sundarlal, themselves veterans Gandhites. They hold that the points of difference between Marxism and Gandhism are very few. Gandhism is Marxism minus violence. They assert that the Gandhism principles of simplicity, non violence and decentralization of power are actively pursued in post – Revolution China, which is evidently being built up on the basis of the Marxian philosophy of the Chinese communist party.

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GANDHIAN APPROACH TO ECONOMIC DEVELOPMENT

The Gandhian model of Economic growth involves the development of villages.i.e. rural development. According to Mahatma Gandhi India lives in villages. About 60% of the population lives in its villages and there are poverty, unemployment, poor and inadequate infrastructure in rural areas. So to Gandhiji every village has to produce and use all its necessities. Agriculture should be the basic industry. Rural development must aim at 'upliftment of all'. 'Village swaraj' Swadeshi means to produce goods by oneself to satisfy his wants. Poorna swaraj or complete independence by truthful and non violent means.

So Gandhiji emphasised on rural development because the development of the country depends upon the development of villages. All the goods and services necessary for the village people should grow within the villages. Every village should be a self contained republic. If every village distributes its surplus produce to poor villagers then there will not be any problem of poverty and starvation in rural areas.

Gandhiji declared during the British rule it is machinery that has impoverished India. The craze is for what they call labour—saving machinery. Men go on saving labour till thousands are without work and thrown on the open streets to die of starvation.

If the surplus labour is utilised then the problem of unemployment, under employment and disguised unemployment are solved. The vicious circle of poverty in the villages will be broken. Rural industrialisation will help in this respect. According to D.N. Basu, "the uplift of rural economy need not be only through industries but a wide dispersal of economic activities and consequent generation of productive employment is a pre condition. One projection might along these lines contain only minor industrial development in many rural areas but a major upgrading services and public utilities and a public work programme too, creating in turn a large employment base and developed infra structures". So emphasis should be given to agro based industries, handicrafts, kadhi village and small scale industries which are labour intensive.

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Gandhiji was a revolutionary social thinker who understood the nature of the changing society. Gandhiji advocated *kadhi* as a solution to our economic problems. He said "we are to make progress we must not repeat history but make new history". Most of our people want to make progress by repeating the history of either America or Russia but Gandhiji as a revolutionary wanted to make new history through the implementation of the schemes of *kadhi* including village industries.

Gandhiji knew very well that any government want to implement the scheme of *kadhi* and village industries as a means of relief like stone breaking – road making – bridge making etc. But as Gandhiji pointed out "actually what we are required to prove above all is the necessity for *kadhi* for establishing a strong non violent village economy".

To prevent concentration of wealth and income in the hands of few and to have an egalitarian society Gandhiji advocated decentralisation. According to him decentralisation is one of the means to create classless and exploitation free egalitarian society. Because decentralisation is one of the methods of creating a new social order. Gandhiji looked at the society as one integrated whole. But the centralisation has caused inequalities among the people. Conflicting interests, warring classes, wasteful competition dehumanised market, over production of luxurious and harmful articles. Seeing these evils Gandhiji's aim was to create an integrated society and advocated decentralisation.

The Gandhian concept of decentralization is related to the rural economy and the concept of self sufficiency and the spirit of *swadeshi*. Since Agriculture is not providing full employment to our people and since the capital is scarce and labour is in plenty, the only way to bring prosperity to villages is to revive cottage and village industries which are destroyed by the British. To Gandhiji, decentralised industries provide the scope for the personality development of the workers and dignity of labour. He was not against industrialisation and heavy industries but this must be done by the Nation.

Gandhiji recommended every programme in favour of the poor. For instance the appropriate technology recommended by him is labour intensive technique which is Technology 'with the human face', 'self help technology' - the relevant technology or the appropriate technology because it is the one which optimises production with more employment opportunities or these are appropriate to the socio economic environment of the country. As Gandhiji said, the poor of the world cannot be helped by mass production, only by production by the masses.

The basis for Gandhiji's idea of trusteeship is Isopanishad which says Tena tyaktena bhunjithah i.e All that is in the universe is pervaded by god Renounce first therefore in order to enjoy covet not anybody's riches". According to this one can earn crores and crores of money by following any right economic activity. But he should understand that the wealth does not belong to him but to the people. He can take what he requires for his legitimate needs and use the remainder for society.

The character of production will be determined by social necessity and not by personal whim or greed. For example the land should not be allowed to cultivate tobacco when millions of people are underfed. Like wise the modes of production and the appropriate technology should be conducive to the whole people not for an individual. The village economy should be strengthened only when our agriculture is developed. In our country the tremendous factor for production is human labour. If we wish to meet our needs we have got to utilise this enormous factor for producing commodities to satisfy hunger. The exploitation of the villages by the cities should be arrested. The brain drain and the talent drain from village to cities must be stopped. 'Go back to villages'. If all the villages develop and grow India will develop and grow. Thus the concept of rural development, dignity of labour decentralisation trusteeship village and Khadi and small industries, self help groups. Labour intensive techniques still have relevance in India even today. Gandhi recommended cow protection-cattle breeding, improvement of the stock, and humane treatment of bullocks and formation of model diaries. He advised the labourers 1) never to resort to violence 2) never to molest black legs 3) never to depend upon alms and 4) to remain firm no matter how long the strike continued and to earn bread during the strike by any other honest labour. He recommended self purification because it leads to the purification of ones surroundings. All these create and foster growth and economic development.

GANDHIAN ECONOMIC OF THOUGHT

INTRODUCTION:

Gandhiji he came back to India in 1906 .He assumed the political leadership of the country, ie invigorated the Indian national congress and started the non-violence movement for the achievement of political freedom. In 1921 he started the non-co-operation movement. In 1942 under his leadership the Indian national congress passed the "Quit India" resolution. He was jailed several times for his political activities. While going to his daily prayer meeting he was shot dead by an extremist on January 30, 1948.

WELFARE ECONOMY:

In the Gandhian economic thought man figures more prominently than wealth. To him , human beings themselves were wealth, not gold and silver "The final consummation of all wealth is in producing as many as possible, Full, breadth, bright-eyed and happy hearted human beings". He beloved that country was the richest which nourished the greatest number of happy individuals and that man was the richest who after fulfilling the mission of his own life and perfecting its function to the maxim extend, influenced the lives of others.

Gandhi held that economic motives and activities should be Government by ethical consideration. To him economics and ethics were inseparable. In the west, people generally hold the view that majority of mankind and by happiness and economic prosperity. It doesn't matter very much to them if through laws of morality are broken for the sake of that happiness.

Rejecting western materialism which has no ethical bias, Gandhi praised the work of John Ruskin who contended in his *Unto This Last* that the people could become happy only if they obeyed moral laws. To Gandhi economics was a practical science which suggested practicable measures for the maximisation of the human

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welfare. He laid great emphasis on human values and condemned monetary basis of human relation.

CONCLUSION:

Problems in regard to decentralized system of production restriction on wants proper distribution, Industrialism, mechanization, minimum wage, role of unionism, economic equality, relationship with land lord and peasant, capital and labour and other allied economic problem all these find a solution in the all comprehensive Gandhian principles of economics, viz , Sarvodaya which aims at the welfare of all.

There fore we can conclude that Gandhian economic thought may be described as pragmatic humanistic economy because ,it is based on realistic approach to life with emphasis on human value and human dignity.

AMARTYASAN IDEA OF ECONOMIC DEVELOPMENT

Introduction:

Amartya kumarsen (3 November 1933) satiniketan west Bengal india. 1998 Nobel Memorial Prize in Economic Science for his ark on welfare economics. He is know as "Mother Theresa of Economics" for his work on famine, human development theory, welfare economics, the underlying machanisms of poverty, gender inequality and political liberalism.

Sen's revolutionary contribution to development economics and . social indicators is the concept of 'capability' developed in his article "Equality of What." He argues that governments should be measured against the concrete capabilities of their citizens. This is because top-down development will always trump human rights as long as the definition of terms remains in doubt (is a 'right' something that must be provided or something that simply cannot be taken away).

For instance, in the United States citizens have a hypothetical "right" to vote. To Sen, this concept is fairly empty. In order for citizens to have a capacity to vote, they first must have "functioning's" these functioning's can range from the very board, such as the availability of education, to the very specific such as transportation to the polls.

Only when such barriers are removed can the citizen truly be said to act out of personal choice. It is up to the individual society to make the list of minimum capabilities guaranteed by that society. For an example of the "capabilities approach" in practice, see Aartha Nussbaum's Women and Human Development.

Research :

Sen's papers in the late 1960 and early 1970s helped develop the theory of social choice. American economist, Kenneth arrow, RAND corporation history of economic thought and Philosophy.

Conclusion:

Sen gives us a model for India as it is if a leader can combine sen's democratic leadership structure with moralitics, he will be able to lake India for in the Economic, political and social realms.

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DEVELOPMENT IDEAS OF GANDHIJI

Introduction:

Gandhi's thinking on socio-economic issues was greatly influenced by the American writer Henry David Thoreau. Throughout his life, Gandhi sought to develop ways to fight India's extreme poverty, backwardness and socio-economic challenges as a part of his wider involvement in the Indian independence movement. Gandhi's championing of Swadeshi and non-cooperation were centred on the principles of economic self-sufficiency. Gandhi sought to target European-made clothing /and other products as not only a symbol of British colonialism but also the source of mass unemployment and poverty, as European industrial goods had left many millions' of India's workers, craftsmen and women without a means of living. By championing homespun khadi clothing and Indian-made goods, Gandhi sought to incorporate peaceful civil resistance as a means of promoting national self-sufficiency. Gandhi's concept of egalitarianism was centred on the preservation of human dignity rather than material development.

Decentralization of Power

Gandhi believed that grass-root development through micro-planning will inspire neighboring areas and ultimately the whole nation. Gandhi placed Village Panchayat as units of self-government and tools of grassroots planning which will ensure the self-sufficiency in the village. Self-sufficiency as stated by Gandhi, is as much self-dependent as interdependent, when dependence becomes necessary in order to keep society in good order then it is no longer dependence but co-operation where each is equal to the other.

Concept of Socialism - Trusteeship

Under the Gandhian economic order, the character of production will be determined by social necessity and not by personal greed. The path of socialism should only

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be through nonviolence and democratic method and any recourse to class-war and mutual hatred would prove to be Suicidal.

Modern interpretations

The proximity of Gandhian economic thought to socialism has also evoked criticism from the advocates of free-market economics. To many, Gandhian economics represent an alternative to mainstream economic ideologies as a way to promote economic productivity without an emphasis on material pursuits or compromising human development. Gandhi's emphasis on peace, "trusteeship" and co-operation has been touted as an alternative "to competition as well "as conflict between different economic and income classes in societies. Gandhian focus on human development is also seen as an effective emphasis on the eradication of poverty, social conflict and backwardness in developing nations. Gandhian socio-economic ideas have gained the interest and attention of an increasing number of people across the world.

GANDHIJI'S VISION ON ECONOMIC DEVELOPMENT

Development is a very popular word in our vocabulary. We use this word in more than one sense – when somebody is in the process of building up some thing- we ask him questions such as: "What are the developments?" "What is the latest development?" etc. A photo negative is 'developed' for print. In the context of Economics any one of the four dictionary meanings given below would be applicable:

- i. to bring to a more advanced or more highly organized state;
- ii. to cause to grow or advance;
- iii. to evolve;
- iv. to exploit the natural resources of a region;

Gandhian Movement is becoming stronger in the world today. We cannot conceive of the modern world without Gandhi and his thought. To say that, "All his ideas are right but he is two hundred years ahead of his time" as to denigrate both Gandhi and his Sarvodaya. In fact, Gandhi is more relevant today than ever before. We have to choose between Atom and Ahimsa, Non-violence and Non-existence, Sarvodaya and Sarvanasa (total annihilation). More than ever before, that too at a time when humanity is involved in a serious reappraisal in view of the new challenges, there is a growing awareness all over the world that Gandhi's work, teachings and his thought have greater relevance. This is what Dr. Nelson Mandela said: "Gandhi holds the key to human progress." It would be no exaggeration to say that constructive programme is the key to the construction of Poorna Swaraj or complete Independence by truthful and honest means and it has greater relevance today. One of the best ways to express our gratitude to the Father of our Nation is to carry out constructive programme in our day-to-day life and to remember as often as possible the relevance of his thought in our life today. The constructive programme is almost half a century old and therefore, in my view the relevance of Gandhian Thought is as old as the constructive programme.

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Seven Cardinal Sins:

Gandhiji has also cautioned us about seven sins:

- i. Politics without Principle
- ii. Wealth without Work
- iii. Pleasure without Conscience
- iv. Knowledge without Character
- v. Commerce without Morality
- vi. Science without Humanity
- vii. Worship without Sacrifice

Constructive Programme:

This document was first written by Gandhiji in 1941, later revised by him in 1945. This is his programme for action. Very few Indians could be considered original thinkers. We come across exponents of the Soviet Model, British or American model, Chinese model etc. Gandhiji alone has given us an Indian model which is free from foreign influence. In Gandhiji's own words, "The constructive programme may otherwise more fittingly be called construction of Poorna Swaraj or complete independence by truthful and non-violent means". The list of programmes is as follows:

1. Communal Unity
2. Removal of Untouchability
3. Prohibition
4. Khadi
5. Other Village Industries
6. Village Sanitation
7. New or Basic Education
8. Adult Education
9. Women

10. Education in Health, Hygiene
11. Provincial Languages
12. National Languages
13. Economic Equality
14. Kisans
15. Labour
16. Adivasis
17. Lepers
18. Students

Conclusion:

The has to be a three pronged approach. Khadi and Village Industries should be promoted and supported by the State for they alone could provide employment to rural population on a large scale and prevent to a great extent their migration to urban areas. Indian consumers should buy goods made in Indian factories in preference to those made from factories owned by MNCs. Where we do not possess some essential technologies and foreign collaboration is inevitable, we have to go in for it. Also on terms of equality, we can carry on trade with other countries of the world. These are the steps feasible for the present.

GANDHIAN ECONOMIC THOUGHT: ITS RELEVANCE TO NEW ECONOMIC POLICY

Mahatma Gandhi, the embodiment of truth and non-violence is the great thinker of modern times who added many new dimensions to the history of thought. He was not merely a philosopher or thinker rather a man of action who reacted with vigour to every problem-political, social and economic with truthful means. His thought is intensely practical and comprehensive.

Mahatma Gandhi was not conventional economist like Adam Smith, Alfred Marshall, J.M. Keynes, etc. He did not compose voluminous treatises on economic ideology. He advocated certain policies with regard to the development of Indian agriculture, industries, swadeshi, etc. He did not present his economic ideas in any systematic manner and at one place, they have to be culled from innumerable passages occurring in his article interviews, speeches and answer to the questions which are now available in 100 volumes project named as 'the collected works of Mahatma Gandhi'.

Man the supreme consideration: The center of his economic thought is man and not the material prosperity or scarcity. He aimed at the development, upliftment and enrichment of human life, rather than a higher standard of living with scant respect for human and social values. He wanted to elevate modern economic philosophy from its materialistic base to a higher moral plan where human actions were motivated by social objective rather than individualistic and self consideration. If one seriously looks at the performance of the economy after liberalization keeping in view the Gandhian economic thought, one would identify serious deficiencies. Despite the higher growth rate, the effect of the growth could not reach to the poor. For growth to be inclusive, it must, minimally, "trickle down" to the poor. In a country with as much poverty and unemployment, it is evident that employment should be the primary objective of economic development. Gandhiji faced this issue squarely "we should be ashamed of resting or having a square meal so long as there is one able bodied man or woman without work or food". He wrote as long as 1921, when the total population of united India was less than number of Indians below the poverty line to day.

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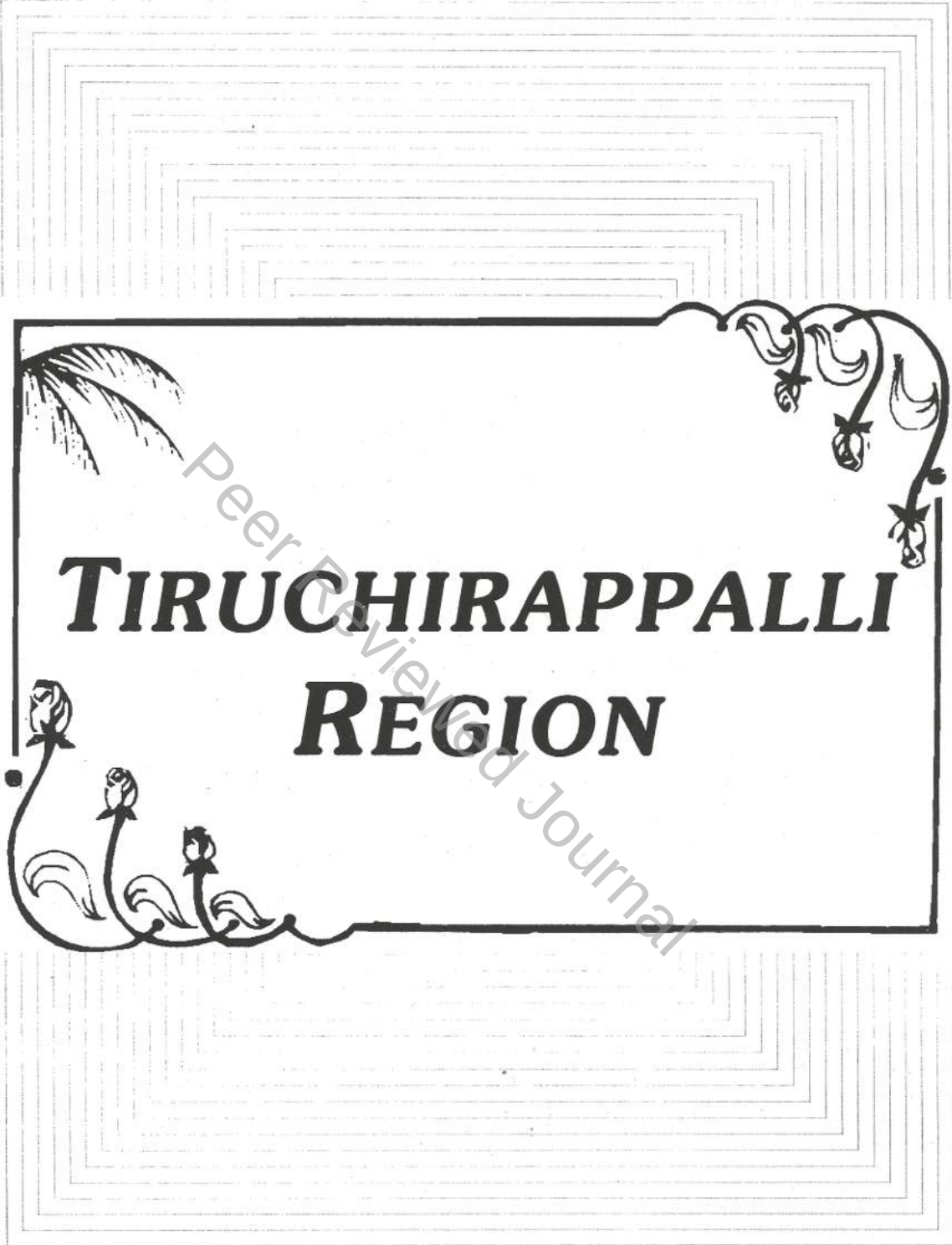
In 1990s, like Gandhiji, professor Mahabub-ul-Haq and Amartya Sen, both from the South Asian-Region, were also agreed that the people should be at the centre of the development. The late Mahabub-ul-Haq cautioned against growth that a "jobless, rootless and ruthless". They remained us that development is about "human well-being" and not just about incomes, indeed, this unique partnership of ideas around the concept and practice of "human development" that places people squarely at the centre of development. To create a non-violent and non exploitative social order, Gandhiji proposed the idea of 'constructive work' which was not merely a tactical instrument in struggle against colonial regime rather it is still applicable and relevant. It has potential to ensure economic security, sustainable growth and ultimately durable peace and prosperity.

Gandhi's view on Technology

The liberal policy of foreign direct investment (FDI) was also one of the important measures of new economic reforms. During the 1980s and 1990s foreign direct investment was a key factor in shaping the world economy. FDI has now come to be widely recognized as major contributor to growth and development. India has sought to increase inflows of foreign direct investment with a much liberal policy since 1991 after four decades of cautious, if not always restrictive, attitude to it. The year 1991 saw a paradigm shift in Indian economic planning. Foreign direct investment has now becomes very important source of transfer of technology from foreign nations to developing countries. India has given red-carpet welcome to foreign technologies since 1991. Nehru was convinced that rapid development of Indian economy can be made only through big machinery and industrialization.

Conclusion:

The path of the liberalization, privatization and globalization (LPG) that India adopted has definitely accelerated the growth of economy but. It can neither ensure over all developments nor can guarantee the vary independence of Indian industries. The solution lies in the Gandhian framework that focuses on the fulfillment of need and not the greed. The Gandhian formulation with regard to the economic system will not be dragging us backward rather it will carry us to progress. Gandhiji has been critic of modern civilization but he agreed with everything which was not against humanity. Rudolph and Rudolph in "post-modern Gandhi" have rightly observed that Gandhiji set the agenda for post-modernism. While interpreting and re-interpreting Gandhiji one must analyze the economic extension of his thought in accordance with the place and time. Our circumstances do not allow us to ignore Gandhiji. There are number of dimensions in his thought. In many sense his thought are even more relevant today than his time.



TIRUCHIRAPPALLI REGION

Peer-Reviewed Journal

EMPOWERMENT OF WOMEN THROUGH SHGs IN VALLAM VILLAGE, KARUR – DISTRICT

"If you want to awaken the country, first awake the women, if a women is awakened a family is awakened, and a family is awakened, a village is awakened, thereby entire country is awakened".

Jawaharlal Nehru

Introduction

Women as mother of the nation should be strong, aware and alert. The Government of India has continuously been formulation strategies and initiating processes to bring women into the mainstream. In addition, the government of India has brought about specific legislation to protect and safeguard the rights of women.

Women constitute nearly half of the nation's population. They have tremendous talent potential to contribute in harnessing technology for human and social development.

Women Empowerment

Women empowerment concept was introduced at the international women's conference in 1985 at Nairobi. Women's empowerment principally aims at enhancing their social functioning by a quantitative and qualitative change particularly in the field of education, health and employment, which will bring the desired level of change. The government and voluntary organizations are providing many income generating schemes to raise the economic status of women.

Women's empowerment is very essential for the development of society. Empowerment means individual acquiring the power to think and act freely, exercise choice and fulfil their potential as full and equal members of society.

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Objectives

To find out the socio – economic status of self – help group women.

Hypothesis

The following is the hypothesis

- ☛ After joining in SHG, the respondents socio–economic status is improved.

Methodology

This is based on primary data. Primary data have been collected with the help of questionnaire and focus group discussion. Data have been collected from 100 SHGs member in Vallam.

ANALYSIS

COMMUNITY

Caste is considered as one of the most important and oldest institutions of Indian society. It has a definite social mechanism which helps an individual to internalize the values, norms and behavioural pattern embedded in that particular caste.

OCCUPATION

Occupation is a very important factor deciding the economic status of an individual.

Table No1 shows the occupation of the respondents.

S. No.	Occupation	No. of Respondents	Percentage
1	Agriculture	53	53
2	Milk Production	37	37
3	Tailoring	7	7
4	Pettyshop	3	3
	Total	100	100

TABLE – 1
OCCUPATION OF THE RESPONDENTS

Source : Primary Data

Table No.1 reveals that 53 percent of the respondents are engaged in Agriculture, 37 percent of the respondents are engaged in milk production, 7 percent of the respondents are engaged in Tailoring and 3 percent of the respondents are engaged in pettyshop.

MONTHLY INCOME

S. No.	Monthly Income (in Rs.)	No. of Respondents	Percentage
1.	Below 1000	11	11
2.	1000 – 2000	19	19
3.	2000 – 3000	46	46
4.	3000 – 4000	15	15
5.	4000 – 5000	9	9
	Total	100	100

One man's expenditure is another man's income. Table No.2 shows various income groups of the respondents are taken for study.

TABLE – 2
MONTHLY INCOME OF THE RESPONDENTS

Source : Primary Data

Table No-2 shows that the monthly income of the respondents. 46 percent of the respondents are earning Rs.2000 – 3000 per month. 19 percent of the respondents are earning Rs.1000 – 2000 per month. 15 percent of the respondents are earning Rs.3000 – 4000 per month and only 9 percent of the respondents are earning Rs.4000 – 5000 per month.

FINDINGS, SUGGESTIONS AND CONCLUSION

The following are the Findings of the Study area

- ☛ 46 percent of the respondents belong to 30 – 49 age group.

- ☞ In the present study all the respondents belong to Hindu religion.
- ☞ No scheduled caste respondent is found in the study area.
- ☞ 48 percent of the respondents are illiterates.
- ☞ 53 percent of the respondents are engaged in agriculture.
- ☞ 46 percent of the respondents are earning from Rs.2,000/- to Rs.3000/- per month.

Suggestions

The following may be suggested for their better Socio – Economic conditions

- ☞ Impact Training for personality Development
- ☞ Provision of Adequate Medical Facility.
- ☞ Supervision of Governmental programme is a must

Conclusion

Self – Help Groups are really a boon to women empowerment. It is expected that the social and economic reforms leading to women development will be reality, through Self – Help Groups.

CHANGING SCENARIO IN AGRICULTURE

(From Ploughing To Packing
With special reference to Tiruchirappalli)

Introduction

Agriculture in Tiruchirappalli District theoretically considered as like other sectors requires four factors namely land, labour, capital and organization skills. The existence of different size of holdings in the district is of immense importance. Small, medium and large holdings are existing. The percentage of small and medium farmers is shrinking due to so many causes. Large scale holdings are converted from primary to reality sector like real estate plots. Some are directing them to infra-structural development. Many area of land are converted for the establishment of schools, colleges and micro as well as major industries.

The above transition leads to the exodus of rural labour to industries. Even young boys are migrating to nearly towns. This migration happens to informal sector not vertical but horizontal mobility. Their income may be moderately higher, not helping to rural finance.

Education is higher to girls rather than boys. Rural women are turned from rural administration to processing and handicrafts manufacturing. The use of a pair of bullocks and yoke is found to be a rare scene. The rural girls turned to follow sheep and goat rearing. They are now finding employment in textiles and retail sectors, construction of houses and apartments and factories.

Technology in Agriculture

Indian farmers are very familiar with the traditional methods of cultivation. Introduction of technology in agriculture increases the efficiency of farm enterprise. Technology is introduced in the following ways. Starting from tilling and sowing till harvesting and thrashing so many machines are invented and sparsely used in some areas.

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In ploughing, instead of bullocks, mini tractors and trucks are used. Now tempos and mini lorries are available transport of commodities to workplaces and market.

In sowing, man direct hand seeding is replaced by machines. It saves time & labour and cost.

In case of inputs, bio fertilizer is replaced by synthetic (urea). It gives fertility to the land and also gives technological benefits. The use of bio-fertilizers helps to improve the fertility, lessen the use of pesticides and improve the yield per hectare.

Regarding, packaging, gunny bags are replaced by fibre bags. The transportation like bullock carts are replaced by trucks & vans. During harvest, the manual labour is reduced with the help of harvesters and thrushers.

With the advancement in water management, the application of drip irrigation, tube irrigation is used. Sprinkler method of irrigation is also adopted for some crops.

In horticulture, the crops like hybrid varieties Gova, flowers, lemon, Sapota are introduced. Vegetables like drumstic, brinjal, cabbage etc are under cultivation.

As a result of modernization in agriculture, the cultivators can get more income and produces benefit to the farmers. They may sell their products directly in Uzhadavar Chandai (farmers friendly).

Merits

1. Modern methods of cultivation simplifies the work for ex, Harvesting machines (thereher) will separate the husk and paddy within an hour.
2. The hybrid variety of seeds accumulates the profits for paddy, banana etc.
3. Multiple cropping is possible with the help of modern cultivation.
4. Fertigation is a gift to the dry land farmers.
5. Drip irrigation increases the production of fruits and vegetables in dry areas.
6. Due to non-availability of agricultural labourers, the modernization solves the problem of labour supply.
7. In certain cases, the cost of production is low compared to the traditional cultivation.

8. Commercial crops will increase the revenue of the farmer.
9. Farmers can identify the most profitable crops by knowing the modern methods of cultivation.
10. Modern cultivational methods help the farmers to have crop rotation and also to earn more income.

Demerits

1. Advancement in non-farm sector has reduced the importance of agricultural sector in Trichy.
2. All the fertile lands are converted into small scale industries, plots and other works.
3. Since the Trichirapalli district is located in the centre of TN, it receives poor rainfall.
4. Pulses and cereal cultivation has a diminishing trend in production.
5. Chemmai Nel cultivation has to some extent reduced the other varieties of paddy cultivation in Trichy district.
6. Application of machinery is still a question, to the farmers.
7. Urbanisation in Trichirapalli District has reduced the agricultural operations due to education and employment opportunities.
8. Banks loans are easily available for the large farmers whereas small farmers find it difficult.

Suggestions

1. Awareness should be created among the poor farmers.
2. Provision of subsidy and grants-in-aid by the Government should be increased to the maximum.
3. Association among the farmers should be created to get the communication facilities.
4. Supply of seeds, fertilizer, and other inputs should be given at a concessional rate.

5. Crop insurance should be given immediately without any premium.
6. Higher procurement price should be fixed by the government for all the major crops cultivated by the farmers.
7. Liberal agricultural policy should implemented for imports and exports.
8. Chemical fertilizer will be eliminated by the introduction of bio-fertilizer factories in rural areas.

Conclusion

It is true, that the two thousands year old agriculture in this region is now undergoing to topsy turval because of the research and application. This dynamism or change is yet to be put in practice in dry land crops also. For example, pulses and millets are to get the attention by the farm sector, so that people get protein & minerals apart from carbohydrates.

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FIVE YEARS AFTER TSUNAMI – NAGAPATTINAM EXPERIENCE

Introduction

Nagapattinam district located in the state of TamilNadu has always had its share of disasters. Known to be in a cyclone prone area, its flat terrain and the unusually long 187 kms. coastline and direct projection of its land mass into the Bay of Bengal made it an easy target for the mighty Tsunami on 26.12.2004 which was till then unknown.

Objectives

The present paper aims to have the following objectives:

- ① To understand the geographical location of the district being the reason for occurrence of Tsunami.
- ① To know the prevalence of previous calamities in the district.
- ① To analyse the level of damage in various sectors of the economy.
- ① To bring out the remedial measures by the Government and Non-Governmental Organisation.
- ① To suggest some remedial measures for future protection.

The Black Sunday

An earthquake of severe intensity with a reported magnitude of 9.0 on Richter scale at 6.29 A.M. on 26.12.2004 with its epicenter off the coast of Sumatra, Indonesia triggered giant tidal waves hitting as many as 14 countries across Asia and beyond. These giant tidal waves later identified as Tsunami (meaning harbour waves) hit the Indian coastline including Tamilnadu which was the most affected state in India.

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Scale of damage

The Tsunami left around 6065 people dead and the entire coastline devastated in the district. A round 73 habitations in 38 Revenue villages and 5 Taluks were affected. Out of these, 1776 were children which are approximately one third of the total dead and 2406 were women. The high death toll of children and women highlighted the fact that Tsunami had caught people no way connected. A possible explanation for the high number of deaths among women was that the Tsunami struck at a time when most of them were in the shore receiving their men folk returning from the sea. The fact was that it was a day after the Christmas and a Sunday morning which had a large number of people, enjoying the morning breeze.

Nagapattinam district alone accounted for 76% on the deaths of entire state and was the worst affected state in India. In the education front, 41 Elementary, seven Primary Schools, Two High Schools and One Higher Secondary school were damaged. On the health side four Public Health centers, three PHCs and One Government Hospital was damaged.

The impact of the disaster was magnified with the previous day being Christmas and the pilgrim town of Velankanni, where the Holy Shrine of Basilica is located, was teeming with tourists. Moreover the pilgrim town of Nagore where the Dargah is visited by people from all over the country was also hit.

Apart from loss of life, Tsunami caused heavy damage to property as well. The coastal economy was worst hit. Thousands of boats of all kind of catamarans, Fiber Reinforced Plastic (FRP) boats and mechanized boats were smashed by waves and suffered irreparable damage. Fisheries infrastructure like harbours and landing centers also suffered damages. Fisheries department alone reported a damage of Rs.479 crores. Tsunami had not taken away the lives but also livelihoods of those who had survived.

Rescue and Relief

The initial rescue and relief operations, the most challenging in any disaster was handled in the most successful manner in *'Nagapattinam district and have been hailed as a successful model to be replicated'*. Relief operations by the Indian Navy helped the administration has occurred along the coastline. Local efforts in each area

with massive support by the local administration along with locally elected representatives and locally based volunteers were cater to the needy.

Eleven IAS officers have been deputed as an immediate requirement to Nagapattinam under the able leadership of Dr. J Radhakrishnan the then collector. They have formed into different groups and looked after the rescue activities of various villages and blocks.

They had the following priorities:

- o Removal and safe disposal of dead bodies
- o Restoration water, electricity, roads, communications and transport.
- o Reduce panic and build public confidence
- o Build temporary shelters and get people back.
- o Distribution of relief materials
- o Restore other activities like schools, chief welfare centers and hospitals.

Education –Revived Scenario

The government responded to the need in this sector by taking a number of steps as follows:

- All affected students were exempted from paying tuition fees for the academic sessions 2005-06.
- Special coaching classes were conducted.

Initially the educational institutions especially those offering professional courses hesitated in providing exemption to their students, but the Government put this on a fast track. New schools in many villages and a 'Model School in Arcottuthurai village is formed'.

Other infrastructural development

The Emergency Tsunami Reconstruction Project (ETRP) is an externally aided project with assistance from World Bank. Under the MP Local Area Development Scheme (MPLADS) different types of infrastructural development is undertaken. The Government facilitated the establishment of a village knowledge centre in partnership with the M.S. Swaminathan Research Foundation (MSSRF) with the support and aid from TATA Relief committee. The centre trains the villagers in latest computer

programmes. It also disseminates relevant information relating to agriculture, animal husbandry, fisheries, health education, rural enterprises and disaster management. At present '*Akkaraipettai village turns into a knowledge centre*'.

Role of Non-Governmental Organisations

Immediately after Tsunami struck Nagapattinam, numerous Non-Governmental Organisations (NGOs) and also several voluntary groups, corporate houses, charities, public and private sector enterprises rushed in with whatever they had with a view to help the people of Nagapattinam. The successful NGO coordination achieved in '*Nagapattinam is now quoted by many as an example to be emulated in a post – disaster situation*'.

Marching on the Road to Recovery

Tsunami made the people of Nagapattinam to be more courageous, people in this area especially women have been transformed and empowered into confident citizens. The Department of fisheries has started constructing a fish landing centre and a modern auction hall and a drying unit. Top on the development initiatives is the bridge being built across the Kuduviaru river by the National Highways and Rural Roads connecting the two villages to the nearby Nagapattinam town.

The state Government stepped in a big way in the relief phase by providing funds under the Calamity Relief Fund for restoration of basic amenities in addition to basic relief. The Tsunami reconstruction projects funded by the World Bank, the Asian Development Bank and the International Fund for Agricultural Development provide the necessary fillip for long term rehabilitation on a holistic manner.

It is a usual procedure in Nagapattinam and really places being damaged during the months of October, November and December every year. Fishermen in this coastal district are also advised not to go for fishing as it is the rough season and waves in the sea are also rough and unpredicted. Infact the incident of Tsunami rehabilitation measures for Nagapattinam and the reconstruction works are almost permanent in nature. So the disaster can be considered as an opportunity to the district.

Future Requirements

Periodical Training Programme may be conducted for all the staff to be engaged in this district regarding the awareness of early warning system.

- ⌚ A sub centre having direct link with Andhra Pradesh may be opened.
- ⌚ Automatic weather signal station should be opened in Nagapattinam collectorate.
- ⌚ Unseasonal rainfall forecast have to be informed.
- ⌚ Being 187 kms of coastal length in this district specific area to be affected due to heavy rain, cyclone and wind may be announced well in advance.
- ⌚ Automatic trigger mechanism at district level has to be installed.
- ⌚ Weather related informations received from the Secretary and Commissioner of Revenue Administration, Chennai and Government of Tamilnadu, simultaneously it may be informed to all Division level and Taluk level officers so as to reach the message expeditiously.
- ⌚ The fishermen are being alerted by the local revenue people and coastal villages may also be alerted through Village Panchayats.
- ⌚ Bio-shield consisting of coconut saplings right next to the sea from the Tamilnadu Forest Department maybe planted.
- ⌚ Village knowledge centre is required to impart livelihood skills.
- ⌚ Community rain shelter can be provided in fishing villages.

Conclusion

Thanks to the Central and State Governments who rendered their helping hand by showering financial assistance to Nagapattinam District. The Reconstruction works undertaken by the Government and Non Governmental Organizations are unimaginary. After this natural disaster, the transport facility both rail and road, restaurants, schools and colleges, resting places, rehabilitation centers and other infrastructural facilities have been increased quantitatively as well as qualitatively.

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Agriculture and Foodgrains Production in Tiruchirappalli Region: An Analysis

Agriculture in Tiruchirappalli Region

Agriculture is a major economic activity in the districts of Tiruchirappalli region. The Cauvery river irrigation system enables agriculture to be a flourishing economic activity during major part of a year in the region. Further, part of Tiruchirappalli district and the entire Thanjavur district are in the Cauvery Delta, the rice bowl of Tamil Nadu. As per 2001 Census, 71.32 percent of the population in Tiruchirappalli region comprising Tiruchirappalli, Karur, Ariyalur, Perambalur, Thanjavur and Pudukottai districts resides in rural areas. In Ariyalur, Perambalur and Pudukottai districts more than 80 percent of the population of the region resides in the rural areas as per 2001 Census. In Tiruchirappalli, Thanjavur and Pudukottai districts, paddy is extensively cultivated while the area under cholam in Karur district and the area under maize in Perambalur district remained highest in the region during 2007-08.

Agricultural Production

Agricultural production consists of food crops and non food crops. Under food crops, there are cereals, pulses, condiments and spices, sugar crops, fruits and vegetables. Fibers, oil seeds and other crops mostly plantation crops are included under non food crops. The food crops, cereals and pulses together constitute the staple crops and are called foodgrains. Within the agricultural sector, foodgrains production is a major activity covering more than 70 percent of the total cropped area

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in Tamil Nadu. Foodgrains provide almost all the calories and proteins consumed by the poor and provide rural poor with bulk of their employment and income. Foodgrains occupy a significant part in the area under cultivation in Tiruchirappalli region, Tamil Nadu and in India. The importance of foodgrains lies in the fact that the world most poor spends nearly 80 percent of their income on foodgrains. The availability of and accessibility to adequate quantity of foodgrains are the two dimensions of food security issues. Food security considerations remain an immediate priority and the Eleventh Five Year Plan seeks to enhance foodgrains production by 20 millions tones by the end of the Eleventh Plan. In table 1, area, production and productivity of foodgrains in Tiruchirappalli region are given.

Table 1
Particulars of Area, Production and Productivity
of Foodgrains in Tiruchirappalli Region 2007-08

Name of the Districts	Area (Hectares)	Production (Tones)	Productivity (Kgs/hectare)
Tiruchirappalli	112136	268309	2393
Karur	46561	61216	1315
Perambalur	107901	175876	1630
Pudukottai	93859	175009	1865
Thanjavur	191758	487714	2543
Tiruchirapalli Region	552215	1168124	2115
Tamil Nadu	3097539	6581623	2125

Source: Statistical Handbook of Tamil Nadu, 2008.

Table 2
Demographic Profile of Districts in Tiruchirappalli Region

District	Population			Literacy Percentage		
	Persons	Male	Female	Persons	Male	Female
Tiruchirappalli	2418366	120854	120982	77.90	86.55	69.31
Rural	1279204	638617	640587	69.87	81.21	58.66
Urban	1139162	569917	569245	86.86	92.41	81.13
Karur	935686	465538	470148	68.08	79.63	56.76
Rural	624430	310922	313508	62.33	75.28	49.62
Urban	311256	154616	156640	79.59	88.36	71.02
Ariyalur	695524	346763	348761	64.08	77.19	51.15
Rural	616539	307670	308869	62.32	76.02	48.79
Urban	78985	39093	39892	77.74	86.39	69.32
Perambalur	493646	246141	247505	66.07	77.89	54.43
Rural	414426	206807	207619	63.59	76.24	51.11
Urban	79220	39334	39886	78.93	86.50	71.52
Thanjavur	2216138	109668	111950	75.45	84.47	66.70
Rural	1467577	726493	741084	70.73	81.10	60.66
Urban	746561	370145	378416	84.59	90.98	78.39
Pudukottai	1459601	724300	735301	71.12	82.55	59.97
Rural	1211217	600511	610706	68.10	80.46	56.04
Urban	248384	123789	124595	85.72	92.54	79.01

Source: 1) Economic Appraisal, Government of Tamil Nadu, 2002-2003 & 2003-2004
2) www.tn.gov.in

Tiruchirappalli has much historical importance. This city remained the capital of the Chola Kingdom which was called Woraiyur then. The present Tiruchirappalli district was formed in the year 1801. It is a centrally located district in the state of Tamil Nadu. The construction of a dam across the river Cauvery called Kallanai is regarded as the earliest irrigation structure in India. This district is known for its exemplary performance in education. A noteworthy feature of this district is that it has a National Institute of Technology (NIT) formerly called Regional Engineering College. Besides, the location of an Ordnance Factory, BHEL- a Navaratna Public Sector Enterprise and a Railway

Workshop adds another feather on its cap. Tiruchirappalli district has an area of 4,403.83sq.kms and a total population of 24,18,366 persons of which men and women constitute 12,08,534 and 12,09,832 respectively. Production of Foodgrains: Contribution of Individual Districts to Trichirappalli Region

The contribution of individual districts to the total foodgrains output of Tiruchirappalli region is presented in table 3

Table 3
Production of Foodgrains by Districts in Tiruchirappalli Region

Year	Tiruchirappalli	Thanjavur	Pudukottai	Karur	Perambalur	Tiruchirappalli Region
1992-93	646340 (38.04)	743670 (43.77)	309010 (18.19)	-	-	1699020 (100.00)
1993-94	646230 (43.74)	514390 (34.82)	316800 (21.44)	-	-	1477420 (100.00)
1994-95	572000 (36.88)	680590 (43.68)	298390 (19.24)	-	-	1550980 (100.00)
1995-96	427180 (41.01)	534020 (51.27)	80440 (7.72)	0	0	1041640 (100.00)
1996-97	208940 (19.03)	432290 (39.36)	221580 (20.18)	71650 (6.52)	163700 (14.91)	1098160 (100.00)
1997-98	272710 (21.04)	493720 (38.09)	249040 (19.22)	67740 (5.23)	212780 (16.42)	1295990 (100.00)
1998-99	352420 (23.08)	588240 (38.54)	317960 (20.83)	81340 (5.33)	186540 (12.22)	1526500 (100.00)
1999-00	392280 (22.83)	660850 (38.46)	359750 (20.94)	81300 (4.73)	224010 (13.04)	1718190 (100.00)
2000-01	349846 (20.26)	732017 (42.39)	327748 (18.98)	97917 (5.67)	219384 (12.70)	1726912 (100.00)
2001-02	323048 (24.05)	567442 (42.25)	224556 (16.72)	69147 (5.15)	158891 (11.83)	1343084 (100.00)
2002-03	186348 (22.19)	324541 (38.65)	161036 (19.18)	49151 (5.85)	118572 (14.13)	839648 (100.00)
2003-04	163311 (18.69)	362219 (41.47)	149297 (17.09)	39551 (4.53)	159144 (18.22)	873522 (100.00)
2004-05	235851 (19.14)	448773 (36.42)	282471 (22.92)	68956 (5.60)	196140 (15.92)	1232191 (100.00)
2005-06	264476 (22.91)	405722 (35.14)	235476 (20.39)	58607 (5.08)	190206 (16.48)	1154487 (100.00)
2006-07	341479 (21.62)	609993 (38.62)	299620 (18.96)	64776 (4.11)	263634 (16.69)	1576502 (100.00)
2007-08	268309 (22.97)	487714 (41.75)	175009 (14.98)	61216 (5.24)	175876 (15.06)	1168124 (100.00)

Production of Foodgrains by Districts in Tiruchirappalli Region

(in tones)

(Figures in parentheses represent percentages to the total)

Source: 1. Economic Appraisal of Tamil Nadu, various issues, Evaluation and Applied Research Department, Government of Tamil Nadu
2. Statistical Handbook of Tamil Nadu 2008

Tiruchirappalli region, in this study, comprises Tiruchirappalli, Karur, Ariyalur, Perambalur, Thanjavur and Pudukottai districts. This region has produced 16,99,020 tones of foodgrains during 1992-93. This is the highest ever contribution in terms of percentage by the districts together included in Tiruchirappalli region to the total foodgrains production of the State of Tamil Nadu. Out of this contribution of Tiruchirappalli region during 1992-93, the share of individual districts namely, Tiruchirappalli, Thanjavur and Pudukottai has been found to be 38.04 percent, 43.77 percent and 18.19 percent respectively. There is no availability of separate foodgrains production estimates for Karur, Perambalur and Ariyalur districts from 1992-93 to 1995-96 and their contributions have been included in the foodgrains output of Tiruchirappalli district. The contribution of undivided Tiruchirappalli district to the foodgrains production of Tiruchirappalli region has remained, on an average, 39.92 percent for the period from 1992-93 to 1995-96. From the year 1996-97 to 2007-08, the proportion of foodgrains production in Tiruchirappalli district has been hovering around 20 percent of the total foodgrains production in Tiruchirappalli region.

Foodgrains Production Scenario: Tiruchirappalli Region and Tamil Nadu

In table 4, details regarding production of foodgrains in Tiruchirappalli Region and in Tamil Nadu for a period of 16 years from 1992-93 to 2007-08 are presented. The growth rates of the region and the State of Tamil Nadu are also presented in the table.

Table 4
Contribution of Foodgrains by Tiruchirappalli Region to Tamil Nadu

Year	Tiruchirappalli Region (in tones)	Rate of Change (%)	Tamil Nadu (in tones)	Rate of Change (%)
1992-93	1699020 (20.33)	-	8358030	-
1993-94	1477420 (17.89)	-13.04	8257420	-1.20
1994-95	1550980 (17.08)	4.98	9080620	9.96
1995-96	1041640 (16.26)	-32.84	6405290	-29.46
1996-97	1098160 (15.85)	5.42	6930070	8.19
1997-98	1295990 (15.99)	18.01	8103700	16.93
1998-99	1526500 (16.22)	17.89	9412460	16.15
1999-00	1718190 (19.43)	12.56	8842400	-6.06
2000-01	1726912 (20.04)	0.51	8616873	-2.55
2001-02	1343084 (17.47)	-22.83	7788861	-9.61
2002-03	839648 (18.83)	-37.48	4458929	-42.75
2003-04	873522 (20.26)	4.03	4312023	-3.29
2004-05	1232191 (20.05)	41.06	6146044	42.53
2005-06	1154487 (18.88)	-6.31	6116145	-0.59
2006-07	1576502 (19.08)	36.81	8262753	35.09
2007-08	1168124 (17.75)	-26.04	6585623	-20.30

Source: 1. Economic Appraisal, Tamil Nadu, various issues, Evaluation and Applied
 Research Department, Government of Tamil Nadu
 2. Statistical Handbook of Tamil Nadu 2008

From the table, it is evident that Tiruchirappalli Region has produced a foodgrains output of 16,99,020 tonnes during 1992-93. This output is the highest contribution in terms of percentage that is 20.33 percent by Tiruchirappalli region to the State's foodgrains output during the entire period of analysis. Further, the contribution has never exceeded this percentage in the subsequent years though the quantum of production has exhibited an upward movement in absolute terms during the years 1999-2000 and 2000-01. The average growth rate of foodgrains in Tiruchirappalli region has been worked out to be 0.21 percent per annum. This implies that production of foodgrains has come to a standstill during this period in Tiruchirappalli region comprising Tiruchirappalli, Karur, Ariyalur, Perambalur, Thanjavur and Pudukottai districts. In a slight contrast to this observation, the annual average growth rate of foodgrains for the State of Tamil Nadu as a whole has been found to be 0.82 percent which is nearer to one percent. The estimation of growth rates of foodgrains production in Tiruchirappalli region and in the State of Tamil Nadu highlights the fact that the growth rate of foodgrains production in Tiruchirappalli region is lower than that of the growth rate of foodgrains production of the entire Tamil Nadu State.

Concluding Remarks

Agriculture itself is a gamble in the monsoon. The production conditions of agricultural crops differ from the production conditions of manufactured products. In the case of crop production, farmers have little control over production. In agriculture, output of crops either register a negligible increase or remain stagnant. This general phenomenon is applicable to the production of foodgrains also. The factors responsible for the stagnating trend in foodgrains production in Tiruchirappalli region and in the State of Tamil Nadu need adequate attention. These factors are concerned with the issues relating to food security. Availability of and accessibility to adequate quantity of foodgrains are the two important aspects of food security and production of foodgrains is related to the availability part of food security problem. There are food riots in many countries. To help increase foodgrains output, increase in productivity is the only viable option since there is no possibility to bring additional areas under cultivation. Apart from undertaking research activities, strengthening of extension network is a sure way

to bridge the productivity gap. It should be remembered that we often overlook the needs of farm animals while calculating food requirements. In order to cope up with the rise in population, foodgrains production needs to be increased further. Non-availability of foodgrains is a cause for concern and if left unattended, leads to social unrest. When hunger prevails, can peace prevail?

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**A STUDY ON RURAL NON FARM EMPLOYMENT AT
ANDANALLUR BLOCK OF TIRUCHIRAPPALLI DISTRICT**

Introduction

In most developing countries, the rural labour force is growing rapidly, but employment opportunities are not keeping pace. As land available for expansion of agriculture becomes increasingly scarce, non-farm employment must expand if deepening rural poverty is to be avoided. The non-farm employment (NFE) is becoming an important phenomenon in Indian Economy. The present scenario shows, especially since 1970s an increasing rate of NFE not only in India, but all over the world. The proportions of NFE are found greater in the more developed economies than in the developing countries. It has been estimated that non-farm activities in rural areas are a primary source of employment and earnings for approximately one quarter of the rural labour force in most developing countries and a significant source of secondary earnings in the slack seasons for the small and landless farmers. The growing non-farm employment, its magnitude and directions, vary across villages depending upon their economic and location factors.

Agricultural sector alone cannot provide the ultimate solution for rural poverty, unemployment and under employment. A long-term strategy for structural changes in employment and earnings may be necessary for rural households out of necessity, workers are being pushed into the non-farm sector, not pulled by dynamic rural non-farm opportunities. The non-farm employment may include construction, quarrying, repair maintenance of farm implements, vehicles servicing and several other petty semi-skilled works either within villages or in their urban or semi-urban neighbourhood.

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Objectives

The following are the objectives of the present study.

1. To study the impact of non-farm employment on the household income and living standards.
2. To examine the non-farm employment pattern in the study area.
3. To find out gender discrimination in non-farm employment activities.

Research methodology

The data for the research study were collected from both primary and secondary sources. The primary data included the information collected directly from the sample respondents through a prestructured questionnaire by personal interview method. The details regarding the personal identification, their socio economic status, assets, income and expenditure pattern etc were collected.

Selection of the area

The researcher selected purposively Andanallur block in Trichirappalli District where there are more number of non-farm employment. Besides the Andanallur block was familiar to the researcher and easily access to this area.

For the present study only two villages have taken into consideration on the basis of population. The total sample is 50. Simple random sampling was adopted to select the sample. Percentage analysis was done in this study.

Findings of the study

- ❖ Findings revealed that 60% of non-farm employment was created only in rural areas.
- ❖ 52% of the rural workers are engaged in the rural non-farm sector
- ❖ 80% of the respondents agree that non-farm sector is very helpful in poverty alleviation and promotion of livelihoods.
- ❖ The available data reveal that the number of persons engaged in non-farm activities has been gradually increasing over the years which could be attributed to the growing population, land scarcity, increasing number of female labour participation and the low rate of labour transfer to industries in the organized sector.

- ❖ Male workers are engaged in tea stall, bicycle shop and two wheeler and four wheeler repair shops, rice mills etc. Female workers are engaged in construction, stitching and households working.
- ❖ Findings also revealed that gender discrimination in employment patterns. Rural female workers were found to be taking over low paid jobs as compared to male workers.
- ❖ It was also observed that rural workers entered into non-farm sector because of the push effect of agricultural sector and due to the pull effect of non-farm sector.
- ❖ Findings also revealed that education play a vital role in determining access to non-farm occupations.
- ❖ 72% of the rural non-farm workers studied upto primary level of education. It was found that they are still socially and economically backward.

The rural non-farm sector is facing a number of problems. Major bottlenecks in the holistic development of the rural non-farm sector are poor quality of employment and incomes, shortage of skilled manpower, unavailability of credit facilities, absence of marketing networks, poor transportation facilities etc.

Suggestions

The government should have policies to improve education and skills of the workers.

- ⌚ Entrepreneurial development programmes should be effectively implemented to increase employment for the unskilled workers.
- ⌚ The government should take some efforts to improve the credit facilities for non-farm sector.
- ⌚ Concerted efforts are needed to boost the markets for rural products.
- ⌚ The incomes of the women have to be improved by creating opportunities in the productivity sectors.

Conclusion

From the above study it is clear that infrastructure development, higher levels of education, extension of markets for rural products and increased access to credit are all factors that contribute to the growth of the rural non-farm sector.

ECONOMICS OF FLOWER CULTIVATION AT PATTUKKOTTAI TALUK OF THANJAVUR DISTRICT

Pattukkottai Taluk which is located Thanjavur district is known as "SANCTUARY OF FLOWERS" in Thanjavur district. Changing land use pattern and cropping pattern never affected this village. Since a long time, flower cultivation is carried – out on a large scale at Pattukkottai Taluk. The village is very much suitable for cultivation of flower due to the appropriate soil type and climatic conditions. Flower cultivation does not require water as needed for other crops. Paddy needs Water losing whereas sugarcane required sufficient moisture of soil by periodical irrigation. But flowers will thrive on minimum quality of water and watering or irrigation needs to be supplemented twice in a week. Above all, farmers of this village have been cultivating flowers from generation to generation.

OBJECTIVES OF THE STUDY

1. To analyse the family size and household wealth composition pattern of the flowers cultivated.
2. To compare the cost structure of the chosen varieties.
3. To asses the profit received form these varieties.

AREA AND TIME OF THE STUDY

The study area is Pattukkottai Taluk in Thanjavur District. The period of study is 2008 – 2009.

METHODOLOGY

The flower cultivating farmers are identified form the study area and 75 flower farmers were selected by using random sample method from the total large number of 800 flower cultivators in and around Pattukkottai Taluk. Primary Data were collected from the cultivators with the help of detailed questions. The study used simple statistical tools like average and means. Diagrams were used to interpret the data.

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Table 1
TOTAL INCOME AND TOTAL EXPENDITURE AND NET INCOME FROM
FLOWER CULTIVATION (PER ACRE PER ANNUM)

S.No	Flower Variety	Gross Income (TR) (in Rs.)	Total Expenditure (TC) (in Rs.)	Net Income (TR-TC) (in Rs.)
1.	Rose	1,64,250	35,525	1,28,725
2.	Mullai	1,36,875	34,675	1,02,200
3.	Jasmine	1,52,265	29,375	1,22,890
4.	Crossandra	84,400	22,815	59,585
5.	Kakarattan	1,82,500	14,480	1,68,020

The net annual from income from Kakarattan was very high when compared with other flowers. It was worked out to Rs.1,68,020 per acre. It is to be noted that the total cost is also low in Kakarattan cultivation.

Next to kakarattan income from rose was high with Rs.1,28,725 per acre. This was followed by Jasmine with Rs.1,22,890 per acre. The net annual income from crossandra stood at Rs.59,585 per acre. Whereas the net annual income from Mullai was Rs.1,02,200 per acre.

The income from flowers varies with the yield, demand for the flower and average market price existed. When yield is more and demand is also in excess to its supply the market price fluctuated highly and resulted in higher income earnings. The demand is determined by the season festivals and temple functions. This enabled the flower cultivators to show interest in flower cultivation and fetched them a lucrative earnings.

Conclusion:

The study observed that the family size of the respondents and found that majority had the family size of 4 to 6 persons per households.

There were many difficulties encountered by these respondents while cultivating and Marketing. Flowers are easily perishable. Flowers need timely harvesting and

marketing. Any delay in these regards will result in loss to the cultivators. During the heavy rain season and during the winter when heavy dews are formed flowers will lose their quality. It requires handling dealings. Timingly harvest and timingly marketing depend upon labourers employed to pluck the flowers and good transport system. Pattukkottai Taluk is located the state high way of Thanjavur district which has frequent operations of bus transport. The flower cultivators in this area utilize the available good network systems of transport.

The flower cultivators in the region suggest to have perfume factory at Pattukkottai. They also request the authorities to make Pattukkottai Taluk as a specialized center in the production of aromatic flowers. These flower and its essence can be used to produce bio-cosmetic products, Which becomes very familiar in recent times.

Roses can be used to produce 'Gulganth' an eatable which can also be used as an cooling agent and medicine. Steps should be taken to introduce products which can be produced with the help of aromatic flowers as its ingredients.

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Urban Environment Challenges-Tiruchirappalli District

Introduction

Tiruchirappalli district is one of the most important city and which located in center of Tamil Nadu. The city has a multi-cultural society with a sizeable presence of Tamil, English, Marathi, Telugu, Hindi and Malayalam speaking population. The Education institution like schools, Colleges and management studies which are all the precious for the city. On the road infrastructure from has linked the all over state, especially Trichy airport is second largest airport in Tamil Nadu next to Chennai. The new terminal building is opened in 2009. Trichy is only city other than Chennai have made the heart transportation surgery successfully in Tamil Nadu and also a preferred health care destination to the population from nearby towns and districts.

Meteorological Information

The variation of temperature through out the year exhibits hot and dry climate with high temperature and low degree of humidity. Trichy has a moderate and pleasant climate, with humidity slightly above normal. The city experiences mild winters and humid summers. The timing of the monsoon in this part of the country has lately become unpredictable, with the rainy season starting from mid- October until early – November and the rains then extending until early or mid – January.

Summer temperature: 41.10° C (maximum) 36.40° C (minimum)

Winter Temperature: 21.31oC (maximum) 18.60°C (minimum).

Temperature is low during the month of January with average mean daily temperature of 28°C. The maximum daily temperature recorded during the hot season in the month of May. The district receives seasonal rainfall from September to December. The average annual rainfall during the period from 1991 to 1996 is 880.2mm, of which major quantity of rain is received during the Northeast Monsoon period i.e. from October to December

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Water resource

Cauvery is one of the major rivers in South India and Tamil Nadu, which flows towards east. The Cauvery basin extends over an area of 81155 Sq.km, which spread across the states of Kerala, Karnataka and Tamil Nadu.

In Tiruchirappalli district, the river splits into two branches, the northern branch being called the Coleroon (Kolidam) and the southern branch is called river Cauvery. The total length of the river in this district is about 125 Kms and the area of river basin extends about 17,200 hectares of land. Ponnaniar, Uppamodai and Siddhayalli reservoir are mainly used for irrigation purpose. Koraiyar River rises from Karuppur Reddiarpatti hill R.F at an elevation of about 500m. The river carries water from catchment areas of Puttanatam. Viralimalai, Malaikudippatti, Tenaalur, Illupur, Kalluppatti, Arur, Kulakkattai gudi, Keeranur and Thuvankurichi. The catchment area of river is 632sq.km and the length of 75km. The entire catchment of the river is covered by a large number of tanks. Ariyar River rises in manapparai area from pallivelli Mukku at an elevation of about 700m. The river carries water from Kadavur, and Manapparai areas. The catchment area of the river is about 832Sq. km Table 26. Basin wise status of TH ground water availability in the district is not available.

Infrastructure Services and Environmental Status:

The protected Water supply system from ground water covers 75% of the population in the urban areas. The present supply system is 100 LPCD in Tiruchirappalli Corporation. 70 LPCD in Municipalities and 65 LPCD in Town Panchayats. There is no problem identified with supply of drinking water in the district. Municipal solid waste constitute predominantly by compostable matter water pollution is a major public health hazard in the Tiruchirappalli district. A major portion of the trade effluents and sewage are discharged into open drains leading to Cauvery river through several irrigation channels are polluting the ground water in the urban areas. Apart from this, a large number of Commercial establishment's multistoried shopping complexes, cinema theatres, hotels and hospitals, discharge the effluents without any treatment into nearby water bodies, open land areas creating unhealthy situation.

In Tiruchirappalli District, health there is no Villages identified under coverage of problem with respect to drinking water supply due to presence of groundwater availability. With regard to occupied residential houses an about 7,79,543 houses are registered in the year 1991, which has increase to 9,62,076 in the year 2001 data

pertaining to the water supply system and toilet installation are not available and 1,15,443 families are identified under below the poverty line.

Conclusion:

Trichy district is agriculturally rich because of fertile land and sophisticated water facility. The major crop of city is paddy, oil seeds, and groundnut frequently. Trichy city, health there is no villages identified under coverage of problem with respect to drinking water supply due to presence of ground water. The Economy of the city is driven to a certain extent by IT/ITES companies encouraged by the support from state government; a dedicated stretch of land has been indentified and developed to increase the state's share in national IT/ITES exports. Infosys is eyeing Tiruchirappalli for its expansion

Reference:

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TOURISM IN TAMILNADU WITH SPECIAL REFERENCE TO THANJAVUR

Thanjavur has a large share of ancient temple wonder of South India excursions include the temple of Thiruvaiyaru, the birth place of Saint Thiyagaraja, a great poet composer and saint of South India. A major cultural event is the music festival held in his memory every year in January, Kumbakonam 36 K.M. away has four large temples; of which the one dedicated to lord. Subramaniya point 3 K.M away however is famous for its congregation of migratory water flows.

OBJECTIVES OF THE STUDY

The following are the main objectives of the present study.

- (a) To analyse socio-economic and nationalistic backgrounds of the tourists.
- (b) To find out the reasons that impel to visit the tourist place Thanjavur.
- (c) To give the suggestion and solutions in the promotion of tourism in Thanjavur.

HYPOTHESIS

1. The Socio-economic condition is moderate.
2. The In flow of Tourist for the purpose of Tourism is high.

METHODOLOGY

The study makes use of secondary to know about the development tourism in Thanjavur collected from the records of the Tamil Nadu Tourism center in Thanjavur. The study makes use of secondary data to know about to Tourism in Tamil Nadu collected from the records of Tamil Nadu. Tourism Information center.

The Socio-Economic conditions of tourist was obtained from tourists foreign as well as domestic. 50 tourists were selected at random at important tourists places of attraction in Thanjavur town. Information was gathered from 20 foreign tourists and 30 domestic tourists. Separate questionnaires were prepared for foreign and domestic

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tourists. The views of the tourists were collected through this questionnaire. The period study was Dec 2008. Simple average and diagrams were used as tools in the process of analysis.

PURPOSE OF TOUR

A tourists is a tourists because he likes to visit places and people. The survey conducted by Department of Tourism that there is a marked increase in the proportion of tourists coming for business / official reasons. Hence, the purpose of tour of the two categories of samples was studied.

TABLE – 1
PURPOSE OF TOUR

Purpose	Foreign Tourists	Percentage	Domestic Tourists	Percentage
Education	2	10	1	3.33
Enjoyment & Vocation	16	80	29	96.67
Business / Official	2	10	-	-

Source : Primary Data

The enquiry with the tourists reveals that only 10 percent of them are business / official tourists. 80 percent of the foreign tourists and 95 percent of the domestic tourists are on tour for enjoyment and on vocation. Only 10 percent and 5 percent of the foreign and domestic tourists have undertaken tour on educational purpose. Thus, contrary to the findings of the survey of the Department of tourism, the tourists (foreign as well as domestic) coming to Thanjavur are for enjoyment and not on official/business reasons. The collected from Sangeetha Mahal.

Enquiries were made as to from where did they get information about Thanjavur. 75 percent of the tourists have told that they got information about Thanjavur from guidebooks.

A place is considered as a tourist attraction place in Thanjavur to visitor in table.

TABLE – 2
TOTAL NO OF VISITORS

No.	Year	Domestic Tourists	Foreign Tourists	Total number of Visitors	% Change
1.	2003	1,13,102	9,989	1,23,091	-
2.	2004	1,22,789	1,0513	1,33,302	8.3
3.	2005	1,30,872	12,044	1,42,916	7.2
4.	2006	1,22,810	11,246	1,34,056	3.8
5.	2007	1,23,183	15,854	1,39,037	3.8
6.	2008	1,22,497	20,970	1,43,467	3.2

Source : Primary Data

The data collected from Art Gallery. In the shows that table 2003 total number of visitors in 1,23,091 to increase the 2008 Number of visitors in 1,43,467 the arrived in the tourist percentage change 3.2% in period of 2003 - 2008.

SUGGESTIONS

1. Steps must be taken by the Tourism Department to give more publicity about Thanjavur in foreign countries.
2. Authorized trained guides should be provided to the tourists.
3. The Tourism Department should arrange for a small conducted tour within Thanjavur and the nearby places.
4. A western cuisine must be provided in Hotel Tamil Nadu for the benefit of foreign tourists.
5. The area in and around the Big Temple and The Palace Complex shall be beautified.
6. Viable transport system is a necessary prerequisite for comfortable journey.

CONCLUSION

The habit of touring is well established in the case of touring is well established in the case of foreign tourists. That is why majority of the tourists have come to India after visiting some other places. The foreign tourists prefer traveling by Bus thanks to the good transport facility available in Tamil Nadu. Majority of the foreign tourists stay at Thanjavur for a day or two and visit places of tourists attraction. Generally they are satisfied with the lodging food and other facilities. All the foreign tourists are stricken by the size of the Brahadeeswarar Temple and the Art Gallery in the palace complex. The increasing number of foreign as well as domestic tourists indicates a much higher flow of tourists to Thanjavur in future.

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**THE SOCIO-ECONOMIC CONDITIONS OF FISHERMEN IN
ADIRAMPATTINAM AT THANJAVUR DISTRICT.**

The Adirampattinam Taluk Covers an area of 39,275 hectares. The Adirampattinam Taluk is situated between Bay of Bengal at the East, Mallipattinam in the West, Manora in Saravendra Rajanpattinam in the South and Thanjavur in the North. In Adirampattinam Taluk, there are 12 panchayat unions. It is situated 50 kilometers away from Thanjavur. Main occupation of the people of this Taluk is fishing, major portion of land are used to develop fisheries. Adirampattinam is famous for fishing. The main occupation of the population in the study village is fishing.

There are 315 craft owners in Adirampattinam. The craft owners comprise of two categories viz., mechanized boat owners and country boat owners. Out of 315 craft owners there are 265 mechanized boat owners and 50 country boat owners. In Adirampattinam there are 250 middlemen. The middlemen comprise two categories namely wholesale and retailer out of 250 middlemen there are 50 wholesalers and 200 retailers. The socio-economic condition of fishermen families in the study area is analyzed in the project. 50 fishermen are chosen at random for this study. These socio-economic conditions of their families are analyzed and focused in this dissertation.

OBJECTIVES OF THE STUDY

1. To study whether the mechanized boat owners are high in numbers.
2. To examine the educational background of the fishermen households in the study village.
3. To study the income and expenditure of the fishermen families in Adirampattinam.

HYPOTHESIS OF THE STUDY

1. Number of mechanized boat owners is higher than the traditional boat owners.
2. Educational background of the fishermen is poor in the study area.
3. When the Income increases the expenditure also increases in the study area.

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METHODOLOGY

The project was undertaken to study the economic conditions of fishermen families in Adirampattinam. The data used for executing the project, are both primary and secondary.

Secondary data were collected from the Central Marine Fisheries Research Institute, Fisheries Department at Mallipattinam, Adirampattinam and Pattukkottai.

There are 300 fishermen families living in the study area. Out of this 50 fishermen families are chosen for the study. The primary data are collected from the heads of the sample families with necessary questionnaire. The data collected are scientifically processed and tabulated. They are placed in respective place and accordingly the inferences are drawn in the analytical part of the study. Simple percentages are arrived after understanding certain aspects concerned with economic condition of the sample families.

ANNUAL INCOME OF THE SAMPLE HOUSEHOLDS

Table 1 shows that whether the sample by the researcher is annual income of the sample households given.

Table 1

ANNUAL INCOME OF THE SAMPLE HOUSEHOLDS

Income	Mechanized Boat Owners	Traditional Boat Owners	Labourers	Total	%
20000 - 30000	-	-	18	18	36
30000 - 40000	-	5	1	6	12
40000 - 50000	1	4	2	7	14
50000 - 60000	3	-	-	3	6
60000 - 70000	5	-	-	5	10
70000 - 80000	6	-	-	6	12
80000 - 90000	1	-	-	1	2
90000 - 100000	4	-	-	4	8
TOTAL	20	9	21	50	100

Source : Primary Data

The above table analyses the income level of the fishermen family according to different categories of occupation has brought out some interesting features. The income brackets are totally eight numbers. No one who live below income level of 20000 – 30000 rupees of the labour get 100 rupees in an average per day. The table 4.8 indicates their income ranges are between Rs.20000 – 30000 and 90000 – 100000. There are 18% of traditional boat owners and 42% of labourers' house income level in between Rs.20000 – 30000 per annum. This group is the majority of the sample houses hold this income depending upon the quality and marine owners and mechanized labourers have Rs.50000 – 60000 per annum. 10% of the mechanized boat owners have Rs. 60000 – 70000 per annum. 12% of the mechanized boat owners have Rs. 70000 – 80000 per year. Only 2% of mechanized boat owners have Rs.80000 – 90000 per annum and 8% of the mechanized boat owners have Rs.90000 – 100000 per year.

The above table indicates that 36% of sample households having Rs.20000 – 30000 per annum majority of the households are getting income at this range.

SUGGESTION

1. Socio-economic condition of fishermen community has to be improved to a large extent. The social outlook of the majority of the fisherman has not changed perceptibly. They are still under the old beliefs and ideals, which are inimical to their growth, therefore every effort, should be made to instill progressive ideas in the mind of fishermen especially older fishermen who had of the households. Exhibitions, films, distribution of books through library and other materials carrying progressive ideas may supplied to the fisher households.
2. Another neglected aspects in fisheries sector economy is their education. Illiteracy rates are very high in this village. This coupled with the arresting education at the primary level seems to be the stumbling block of the further development. This village people have only the middle school and have not got even library facilities. So that the government must take step to upgrade the middle school to higher school and library convenience to the fisher folk and their generation. The government must the fishermen.

3. Housing condition of the most of the fishermen households is really sympathy. Most of them live in thatched houses, which do not stand at the time of storm. Wind and cyclone, which created considerable damage to the fishermen households. Though the scheme of colonization of fishermen is operated in the village, housing plan given does not seem to be adequate to construct houses. Therefore it is suggested that they should implement a comprehensive scheme providing adequate financial assistance to construct the pucca houses for fishermen should be incorporated in the IX five-year plan of the government.

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CO-OPERATIVE BANK DEVELOPMENT IN NILGIRIS DISTRICT

INTRODUCTION

Membership of Nilgiris district co-operative bank Ltd consists of both individuals and institutional members (co-operative Societies). Now the co-operative are permitted as members and no individual to admit as members of the bank. They are allowed only to "B" class shares issued by the bank. In addition to that the state government is also a member of the Nilgiris district co-operative bank limited.

Objectives

1. To develop and extend banking facilities in rural areas.
2. Encourage thrift and collect saving of the members.
3. Crop loans to agriculturist through co-operative societies covering almost all weaker section of the society.
4. Funds are borrowed from members and utilized for productive purpose.
5. Develop the co-operative movement in the district on found lines.

The Nilgiris district co-operative bank revise the share capital through the allotment of "A" class shares to the principle borrowers and "B" class shares to co-executives. Authorized share capital of Nilgiris district co-operative bank is Rs.300 lakhs. It consists of 6 lakhs. "A" class shares of Rs.50.00 each. The paid up share capital is increased from Rs.518.41 lakhs to Rs.577.35 lakhs in the year 2007-2008.

Suggestions

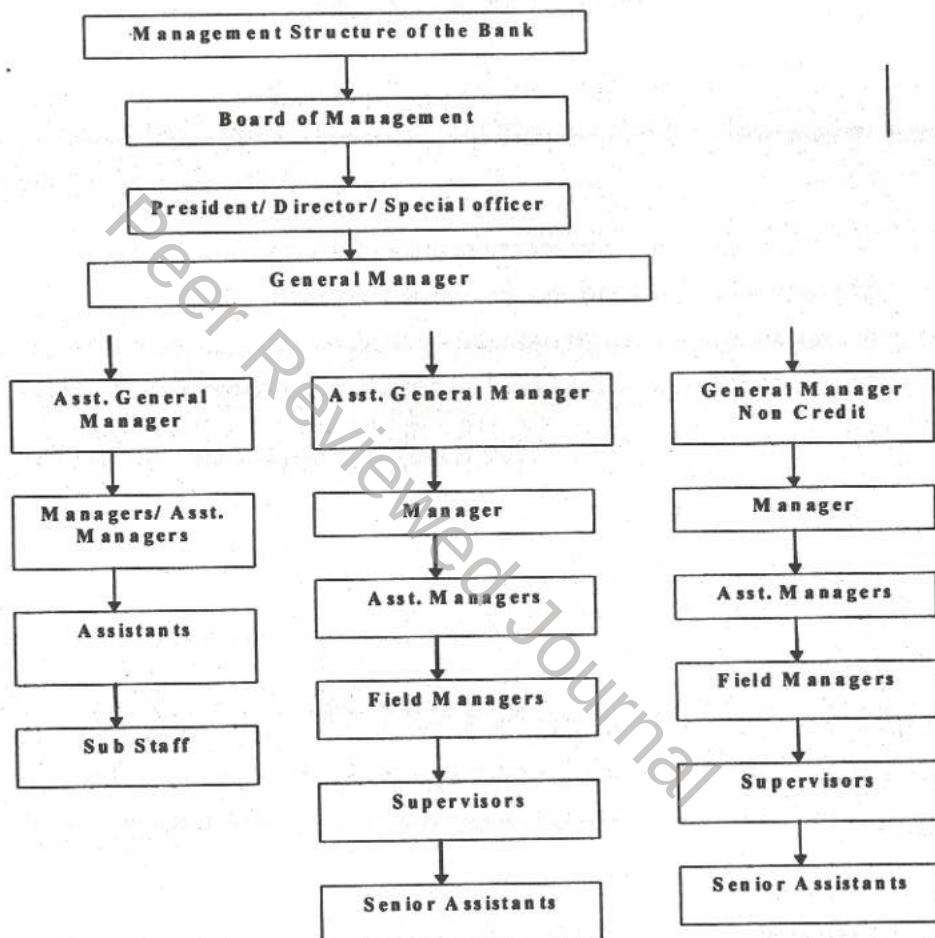
It is observed from the analysis made from this Nilgiris district co-operative bank, Ootacamund. The bank are concentrated more on saving deposits, fixed deposits, cash certificates and neglected current deposits are the major deposits in the bank.

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1. Opening more branches and encourage to start co-operative societies.
2. The branch should make special efforts for tapping deposits from urban areas.
3. Offering competitive rate of interest for current and saving deposits.
4. Timely follow up action should be initiated by this banker for recovery of loans and recovery procedures should be high lighted to increase the profit.



Conclusion

Recently India has achieved tremendous success in agricultural production with the help of improved technology. Adoption of modern farm technology required the application of input like improved seeds, fertilizers, plant protection, chemicals and irrigation, etc. all these leads to intensive demand for finance. The co-operative credit has been relatively more suitable source for financing the agriculture.

INCOME AND OPERATIONAL COST OF FISHERMEN IN THANJAVUR DISTRICT

The total fishermen population in Thanjavur district was 25,378 of which the males were 12,952 and females 12,426 during the year 2008. The fishermen families were 4,120 and the average family size was five.

In the nature of fishermen population, 45 per cent of the total population was in the age groups of 18 to 40 in this district. The table no.1 presents the distribution of population in different age group during the year 2008.

INCOME

This part analyzes the fisheries income of the sample traditional owner fishermen of the area. The income is received from the sale of produce at landing centers. By continuous observation, the average price per kg is estimated by using arithmetic mean. Generally in the study area, fishes are arranged species wise in heaps and sold by auctioning. The practice of weighing is not adopted in the landing centers. The wholesale and retail traders are assembling at the time of landing, and the agents are auctioning the produce. The agents, by mere eye-sight, judged the value of the fish by their experience and they knew the markets trends so are acting accordingly.

The most of the catches in the traditional sector are low valued species and mainly for local markets. The prices varied in respect of the season, quantity and quality of catch, sometimes the arrival of the number of traders at the landing centers also influenced the prices. So there is an uncertainty prevailing in the prices of fish in the traditional sector.

The fisheries income is calculated separately for favourable and unfavourable season in the present study.

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Table No.1

Trip wise Income in Favourable and Unfavourable Seasons

Season	Gross Income	Net Income
Favourable	791	262
Unfavourable	678	149

Thus, in favourable season both the average gross income and net income of a trip are higher than that of in the unfavourable seasons.

The Table Number 2 presents the average annual operational costs for a trip.

Table No.2

Annual Average Operational Costs for a Trip

S.No.	Items	Average Costs (Rs.)	Percentage
1.	Wage	316	60
2.	Fuel	89	17
3.	Middle Man Commission	62	12
4.	Boat and Net Repairing	31	6
5.	Village Contribution	12	2
6.	Miscellaneous	19	3
	TOTAL	529	100

Source : Primary Data

It is understood from the table number 3, that major part of the operational costs is incurred on wage, it accounted for 60 percent, the fuel cost is 17 per cent, the commission paid to middle man is 12 per cent, boat and net repairing have taken 5 per cent, 2 per cent of operational costs is on village contribution and remaining 3 per cent is for miscellaneous expenditures.

RESULTS OF THE STUDY

The objective of the study is to analyze the operational costs of fishery. The hypothesis, that wage and fuel are the major operational costs in traditional and mechanized sector respectively, is framed. In order to test the hypothesis, the different operational costs incurred in operating a craft is observed. It is resulted in, that in traditional sector 60 per cent of the operational costs are incurred on wage and 76 per cent of the costs are on fuel in mechanized sector. From this finding, the second hypothesis is also accepted.

The present study is to assess the income during the favourable and unfavourable seasons relatively the hypothesis that income varies with the seasons in the two sectors is framed. The trip wise average net income analysis of this study brings out the fact that there is 18 per cent more income in favourable season than unfavourable season in traditional sector and that of 38 per cent in mechanized sector. So the fourth hypothesis is accepted.

Another objective of this study is to assess the total household income and expenditure pattern of the sample households. On the line of this objective, the hypothesis that pattern of household expenditure between the two sectors differ significantly, is framed. The researcher studied the total annual household income and consumption expenditure of the sample owners. It is resulted in, that there is a well marked difference is found in the spending on food items in between the two sectors, and moderate difference is found in the other items.

SUGGESTION

Use of trawl net, which are locally called as surukku mati, irrattai mati and roller mati should be banned. This type of nets trawl plants, eggs, juveniles and sub adults from the bottom of the sea to the seashore and thus depleted the marine resources. Further these nets have small mesh size caused to trap the non-targeted species and destruct juveniles. In countries like Sweden, Norway and Peru there is legislation, stipulating

the standard size of mesh. Such kind of legislation has not been enacted in India. It is important to allow fish to the age at which the growth rate is the highest to increase the production. It could be possible only by such an act. Instead of such trawl net, the use of bull trawl nets and purseine operation should be encouraged.

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ECONOMICS OF MARINE FISHERIES IN THANJAVUR DISTRICT

Fishery is an economic activity, standing on par with agriculture and animal husbandry. Land based food production has its own limitations to produce nutritious and adequate food to meet the growing needs of human populations. Under developed countries like India are facing the problem of shortage of food to support the livelihood of their people. Fish is rich in protein, an essential component of food, containing essential amino acids and nutracentrals like PUFA.

Since the ever increasing demand for food made the agriculture and animal husbandry, hard to meet out the total demand, in the circumstance fisheries assume great importance.

Statement of the problem

The fishing ground in Thanjavur District, is mingling with two coastal zones of the Bay of Bengal and the Palk Bay, they have different topographies.

In fishing operation of Thanjavur district both traditional and mechanized crafts are engaged. Instead of mutual dependence, inter rivalry is found in the two sectors.

Mallippattinam is an important fish landing center in the district with a fishing jetty and first Government boat repairing yard in Tamil Nadu was started here in the year 1974. The State Government allotted fund to construct a new fishing harbour at Sethubavachatram it is the another important landing center in the district.

In Thanjavur district there are 23 Fishermen co operative societies and 12 fisherwomen co-operative societies functioning with the total number of 13,487 members.

Most of the fishermen in the study are have alternative employment in agriculture and the coastal villages are the tail end era of the Cauvery delta. The recent Cauvery river dispute totally affected the agriculture of the district and in turn it has is repercussion on the fishery sector also.

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In the changed environment an in-depth study of this type will be highly useful for understanding the real problems of traditional and mechanized sectors of marine fishery in Thanjavur district and would help the planners to formulate suitable plans for other maritime districts of the state also.

Objectives

The study focuses its attention mainly on traditional and mechanized sectors with the following specific objective.

To study the marine fish production in favourable and unfavourable seasons.

Production Analysis

In fisheries economics, the term production is synonymous with, "catch" and "landings". In the present study, for analyzing the production, the quantity of fish arrived at landing center after rejection is taken in to account from the 75 sample owner of the country boats. In the landing centers the arrived fishes are kept in heap with the assistance of middle man so as to attract the buyers. The researcher with the help of middle man quantified the produce in Kilograms for analyzing the production.

Marine fish production depends on the following factors :

- i) Capital (craft and gear)
- ii) Labour (fishermen)
- iii) Depth of the fishing ground
- iv) Number of fishing trips and
- v) Oceanographic, environmental and seasonal factors.

Reliable and adequate data on oceanographic, environmental and seasonal factors are not available and so quantification of these factors is difficult. So in the present study these factors have not attracted the mind of the researcher for the production analysis.

In the fish landing centers, the species are arranged heap-wisely for selling the produce and weighing method is not adopted. In this study a basket having capacity of containing 20 Kg is used to measure the catch at the landing centers with the help of an experienced middle man. The production is calculated by multiplying the number of trips

with the catch per trip, for favourable and unfavourable season separately. From which, the average catch per craft and per trip is computed.

The table 1 presents the total and average production of the sample units in favourable and unfavourable seasons

Table 1
Total and Average Production of the Sample Country Boats

Season	Total Production (Kg)	Average Production (Kg)	Percentage
1. Favourable	2,54,034	3,387	56.5
2. Unfavourable	1,10,406	1,472	43.5

Source : Primary Data

The sample country boats produced totally 2,54,034 Kg. In favourable season and 1,10,406 kg in unfavourable season. The average production of a sample unit during favourable and unfavourable season in, 3,387 Kg and 1,472 Kg respectively. Further it is calculated that 56.5 per cent of the total production is gained in favourable season.

Findings of the Study

In the traditional sector, the fishing is carried on four days in a week, while in the mechanized sector crafts are operated three days in a week. So in the two sectors it is found that the fishing activities were not carried out continuously.

In the nature of fishing trips, it is observed that only on trip was attempted in a day, in both the sectors. The country boats are operated within four nautical miles from the seashore, while the mechanized crafts are carrying out fishing operation beyond four nautical miles. On an average, the country boats attempted 86 trips and 54 trips in favourable and unfavourable seasons respectively. The mechanized crafts, on an average had undertaken 54 fishing trips in favourable season and 43 trips in unfavourable season.

Most of the catches in traditional sector were meant for the local markets and in the mechanized sector the targeted species were for distant markets and also for export. It is observed that the quantity, size and quality of species varied in the two sectors.

The average production of a country boat differed in the two seasons, when the average production was 3,387 Kg in favourable seasons; it was 1,472Kg in unfavourable season. In the mechanized sector, during the favourable season the average production of a craft was 4,482 Kg while in unfavourable season the average production was 2,891 Kg.

It is studied that in the traditional sector that there was 15 Kg more production in favourable season in a trip that that of in unfavourable season. In mechanized sector, there was 19 Kg more production in a fishing trip during favourable season that that of in unfavourable season. It is found that in traditional sector 70 per cent of the total production was gained in favourable season while in mechanized sector the percentage was 61.

Suggestion

The country boat should be mechanized in order to improve the earning capacity of the traditional craft owners. Because the country boats were operated only upto 3 to 5 kms from the sea shore and in that limit no abundance catch was possible. This was one of the reasons, for the less income of the traditional fishermen.

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A STUDY ON THE EMPOWERMENT OF WOMEN THROUGH SELF HELP GROUPS IN ANNANAGAR VILLAGE - TRICHIRAPALLI DISTRICT

INTRODUCTION:

Trichy District is a pioneer district in Tamil Nadu to introduce the concept of SHG with the support of NABARD in the beginning and latter with the support of Mahalir Thittam of Tamil Nadu, Corporation for Development of Women (TCDWI). Above all SHGs recognised every women in productive employment to add value to the economy. Thus, SHGs significantly contribute to the employment of poor women.

President of Pratibha Patil will launch a scheme whereby loans at an interest rate of 4% will be sanctioned to the Self Help Group. The aim being to help these women have easier access to credit improve their livelihood. The interest subsidies will cost the Government nearly Rs.129.01 crore over three year.

The very existence of SHGs is highly relevant to make the people of below poverty line hopeful & self reliant. SHGs enable them to increase their income, improve their standard of living and status in society.

Keeping this view in mind a micro level attempt has been made in the study area –Annanagar village - Tiruchirappalli District.

Objectives

- ⌚ To study the educational qualification of the SHGs members.
- ⌚ To find out their economic status.
- ⌚ To study the reasons for joining in SHGs.
- ⌚ To explain the purpose of getting loan through SHG

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TABLE No.1
REASONS FOR JOINING IN SHG

SL.NO.	Reasons	No.Of Respondents	(%)
1	Save Money	7	14
2	Economic Status	43	86
	Total	50	100

Source: Primary Data

The above table shows that 86% of the respondents have joined in SHG for the purpose of improving their economic status, 14% of the respondents have joined in SHG to save money and to start business.

TABLE NO.2
RESPONDENTS INCOME BEFORE JOINING IN SHG

Sl.No.	Income in Rs.	No.of Respondents	(%)
1	Below 4,000	24	46
2	5,000-9000	27	54
	Total	50	100

Source: Primary Data

The above table shows that 46% of the respondent's income is less than Rs.4,000. But their family size is large. Nearly 54% of the respondents income range is between Rs.5,000 to 9,000.

TABLE NO.3
RESPONDENTS INCOME AFTER JOINING IN SHG

Sl.No.	Income in Rs.	No. of Respondents	(%)
1	Below 5,000	23	46
2	6,000-10,000	20	40
3	11,000-15,000	7	14
	Total	50	100

Source: Primary Data

The above table shows that 46% of the respondents income is below Rs.5,000/-. 40% of the respondents income is Rs.6,000 to 10,000/- and 14% of the respondents income is Rs.11,000-15,000. After joining in SHG their economic status slightly improved.

Findings

- ❖ Most of the respondents belongs to the age group of 20-30 years.
- ❖ Majority of the respondents are Hindu.
- ❖ 40% of the respondents belongs to the backward community.
- ❖ 94% of the SHGs members are literate.
- ❖ SHG improved the economic status of its members.
- ❖ Majority of the respondents borrowed money for the purpose of starting Tailoring shops.
- ❖ Majority of the respondents suffered due to the lack of co-operation among the members.

Conclusion

In general women economic status and social status are very poor. But after joining in SHG, women's economic status have slightly improved. This is one of the most successful programmes undertaken by the Government of India. SHGs helped its members to improve their economic status. It helped in the Upliftment of women. It is one of the measures taken by the Government to promote women empowerment.

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A study of economic empowerment of Women through Self Help Groups at Trichy district.

Persistence is what makes the impossible possible. Empowerment of women is the pressing need of the day. Unfortunately it is the least understood. Empowerment is an active multi dimensional process which should enable women to realize their full identity and Power in all spheres of life. It would consist of greater access to knowledge and resources, greater autonomy in decision making, greater ability to plan their lives, greater control over the circumstances that influence their lives and free from shackles imposed on them by custom, belief and practice. Their economic independence or economic empowerment occupies an area of utmost significance for a lasting and sustainable development of the society. Political participation and social upliftment would be meaningless and almost impossible, if their economic independence is not achieved.

Statement of the Problem :

Women are a vital part of the Indian economy, constituting one third of the national labour force and a major contributor to the survival of the family. The poorer the family, the greater its dependence on women's income. A gender analysis of most social and economic data demonstrates that women in India continue to be relatively disadvantaged in matters of survival, health, literacy, and productivity.

In India, women face extremely adverse conditions with regard to employment due to various social, cultural religious and historical factors. According to 2001 census, the number of working women was 127.04 million out of a total female population of 494.82 million. Economic empowerment of poor women is seen as the only means of poverty eradication. Micro credit is distinctly different from other poverty alleviation schemes, and it is a better tool for eradication of poverty through the formation of Self Help Groups (SHGs).

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Objectives :

The main objectives are

1. To study the impact of SHGs in empowering women economically.
2. To assess the impact of SHGs in increasing the properties owned by women.
3. To study the change in status of women at home and in society due to SHGs.
4. To find out the proportion of income contributed by SHG women to their families.
5. To suggest policy interventions needed to enhance the efficient functioning of SHGs.

Table :1. Nature of Business carried on by SHG Women :

Nature of Business	No of Respondents	Percentage to Total
Cattle rearing	20	40
Agriculture	16	32
Pickle & Pappad Making	6	12
Tailoring	4	8
Vegetable, Fruit Vendors	2	4
Incense Stick Making	2	4
Total	50	100

Table 1 reveals that about 40% of the SHGs women indulge in cattle rearing. Next to cattle rearing, 32% of the women indulge in agriculture. 12% of them indulge in pickle and pappad making. 8% of women do tailoring works. About 8% of women indulge in Vegetable, Fruit vending and incense stick making.

Table : 2 Income of the SHG Women :

The monthly incomes of the respondents are given in Table 2. The earnings of 20% of the respondents are below 3000 rupees per month. And about 68% of the respondents earn up to Rs. 3000 – 5000 per month. Only 12% of SHG women earn more than 5000 per month.

Table : 3 Status of women in Society / at home due to SHGs :

Monthly Income	No of Respondents	Percentage to Total
Rs. 2000 – 3000	10	20
Rs. 3000 – 4000	22	44
Rs. 4000 – 5000	12	24
Rs. 5000 – 6000	4	8
Rs. 6000 and above	2	4
Total	50	100

Status	% of SHGs
Improved	62%
Not Improved	38%

The above table 3 shows that 62% of SHG women think that their status have improved after joining SHGs. 38% of them are of the view that there is no change in their status level even after joining SHGs.

Conclusion and policy Implications :

The study shows the gains acquired by women through Self Help Groups. But, one could not neglect the persistence of disparities between women and men. Though the SHGs have expanded Opportunities for women's participation in the labour force, women are indulged mainly in part time and home based work, which are characterized by lack of security, lack of benefits and low income. The economic empowerment of women could still be improved by increasing the available credit margin of SHG women entrepreneurs. More intensive training on production and marketing to rural illiterate women on their respective fields could improve their efficiency and profit margin. Such initiatives will also encourage women to indulge in large scale production.

A STUDY ON AREA UNDER FLORICULTURE IN THIRUCHIRAPALLI DISTRICT

Flower cultivation was practised in India since times immemorial, floriculture has blossomed into a viable business only in recent years. Considering the potential this sector has in generating income and employment opportunities, promoting greater involvement of women and enhancement of exports, it was identifying as an extremes. Focus area for exports by the Government of India. India is known for growing traditional flowers such as jasmine, marigold, chrysanthemum, tuber rose, crossandra and aster, commercial cultivation of cut flowers such as rose, orchids, gladiolus, Camation, anthurium, gerbera and lilies has also become popular. The increased growing of contemporary cut flowers like rose, gladiolus, tuberose, carnation etc., has led to their use for arrangement for gifts, as well as decoration of both home and work place. India has made noticeable advancement in the production of flowers. Floriculture is estimated to cover an area of 1.14 lakh hectare with a production of 6,70,000 m.t of loose flowers and 13009.3 million cut flowers. Tamil Nadu not only producer flowers but also exports certain flowers like jasmine and rose. Some flowers produced in Tamil Nadu are used for medicinal purposed. It was observed that nearly 8 per cent of growth in flowers production.

Methodology

The data for the present study was collected from various issues of Statistical Hand Book of Tamil Nadu relating to area, production and productivity of fruits for the period of 13 years i.e., (1995-96 to 2007-08). Trend line was fitted with the actual data by means of Method of Least Squares. The main objective of the study was to analyzed area under cultivation, production and productivity of flowers in Thiruchirapalli district.

In the district of Thiruchirapalli flowers was also cultivated, during the period of reference ie., from 1995-96 to 2007-08. In case of area under flower cultivation was found to

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**Table 1. Area, Production and Productivity of Total Flowers in Thiruchirapalli
During 1995-96 to 2007-08.**

S.No.	Year	Area (Hectare)	Production (Tonnes)	Productivity (Tonnes/Hectares)
1	1995-96	783	6913	8.82
2	1996-97	792	6879	8.68
3	1997-98	703	5992	8.52
4	1998-99	668	5528	8.27
5	1999-00	713	5546	7.77
6	2000-01	783	6273	8.01
7	2001-2	749	5958	7.95
8	2002-03	768	6999	9.11
9	2003-04	832	7463	8.96
10	2004-05	852	8908	10.45
11	2005-06	928	8580	9.25
12	2006-07	911	8846	9.71
13	2007-08	1027	9040	8.80

Source : Statistical Hand book of Tamil Nadu and Seasonal Crop Report – Various Issues
be in a increasing trend with some fluctuation in the intervening years. During 1995-96 the area under flower cultivation was 783 hectares and it was increased to 1027 hectares during 2007-08. Only during the year 1998-99 the area under cultivation of flowers was observed to below 700 hectares. The production of flowers in this district accounted to 7037 tonnes during 1995-96 its was increased to 9039 tonnes during 2007-08. During the year 1998-99 and 1999-00 only the production of floriculture was less than 6000 tonnes. The minimum production of flowers was 5558 tonnes during 1998-99. The productivity of this crop was around 8.98 tonnes per hectare during 1995-96 and it was declined to 8.80 tonnes per hectare during the year 2007-08. The yield was observed to be maximum of 9.06 tonnes per hectare during the year 2003-04 and 2004-05 minimum

of 8.0 tonnes per hectares during 1999-00. It is evident from the figure 1a, 1b, 1c, that the area, production and productivity indicate increasing trend.

Conclusion

The overall picture reveals that area, production and productivity of Flowers was increasing trend during the period of reference. Crop- Wise Area, Production and Productivity of flowers in Thiruchirapalli district was increasingly with some ups and downs in the intervening years.

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A STUDY ON SPICES CULTIVATION IN THIRUCHIRAPALLI DISTRICT

Spices constituted an important group of horticultural crops and are defined as vegetable products or mixture thereof, free from extraneous matter, used for flavorings, seasoning and imparting aroma in foods. The term applies equally to the product in the whole form or in the ground form. India is, known as the hour of spices of produces, a wide variety of spices like black pepper, cardamom (small and large), ginger, garlic, turmeric, chilli and a large variety of tree and seed spices. Among various spices growth in the country, chilly is the most widely growth spice with a share in the total production of 33.7 per cent. The demand for chilli as a spice and its oleoresins as a natural coloring materials is growing the domestic as well as international market. Turmeric has a share 21.6 per cent in the total production of spices. India is the largest producer, consumer and exporter of spices and spice products. The total production of spices was 4.3 million metric tones and the area covered was 2.56 million hectare. Spices crops are cultivated in various pocket of Tamil Nadu. Some spices like turmeric, chillies, tamarind, garlic and Ginger are produced in many parts of the state. Nearly the production of spices and condiments was 7.8 per cent.

Conclusion

The study indicates that the total area and production of spices was in an decreasing trend in Thiruchirapalli District over the period of reference. In case of yield of spices in this district it was observed to be in increasing trend.

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A STUDY ON VEGETABLES PRODUCTION IN THIRUCHIRAPALLI DISTRICT

More than 40 kinds of Vegetables belonging to different groups, namely solanaceous, cucurbitaceous, leguminous, cruciferous (cole crops), root crops and leafy vegetables are grown in India in tropical, sub-tropical and temperate regions. Important vegetable crops grown in the country are tomato, onion, brinjal, cabbage, cauliflower, okra and peas. India is next only in China in area and production of vegetables. In Vegetables, India is the largest producer of okra, second largest producer of brinjal, cabbage, cauliflower, pea, onion and tomato and third largest producer of potato in the world. As per FAO statistics India's productivity is ranked 109th in case of vegetables. The Production of Vegetables in Tamil Nadu was expected to registered an increase of 7.8 per cent. A variety of vegetables is grown and produced in different part of Tamil Nadu.

Conclusion

It can certainly be concluded that the Vegetables production was declined in Thiruchirapalli district during last 13 years. The estimated trend line for yield was also in a declining trend. Therefore, more attention is called for to make the farmers efficient in the adoption of modern technologies in their field so that the district can accelerate the vegetables growth in future which is almost stagnant at present.

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A STUDY OF SOCIO-ECONOMIC EMPOWERMENT OF SELF-HELP GROUP WOMEN IN TIRUCHIRAPPALLI

INTRODUCTION

"Empowering women contribute to social and economic development. Economic progress in any country whether developed or under developed could be achieved through social development."

Women constitute equal share with men in total population of our country and the rural women constitute nearly 77% of the total female population. They undertake artesian activities, apart from the household activities.

The concept of Self-Help Group (SHG) is a silent revolution in the rural credit delivery systems in many parts of the world. The basic principles on which Self - Help Groups function are group approach, mutual trust, organization of poor, manageable small groups, group cohesiveness, spirit of thrift, demand based lending, collateral free, women-friendly loan, peer group pressure in repayment, skill training, capacity building and empowerment. It is a pre-micro enterprise for the majority of the rural poor.

Objectives of the study:

1. To study the socio-economic status of the people in the study area.
2. To analyze the motivation of the members to enter the groups.
3. To assess the performance of entrepreneurs and to measure the benefits enjoyed by the SHG members after entering the group.
4. To identify the various problems encountered by the various problems and
5. To offer findings, suitable suggestions and conclusion to bring down the intensity of those problems.

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TABLE -1
RELATIONSHIP BETWEEN BUSINESS AND
BORROWINGS OF RESPONDENTS

Business	Borrowings				Total
	10,000	15,000	25,000	30,000	
Gold covering	9	1	30	6	46
Canteen	5	2	31	30	51
Petty shop	8	2	18	3	31
Readymade	3	0	4	1	8
Photo Studio	1	0	7	2	10
Gift shop	2	0	3	3	8
Masala powder	1	0	1	1	3
Cloth selling	0	0	1	1	2
Tailoring	11	2	34	10	57
TOTAL	40	7	129	40	216

Table value with 5 % level of significance = 45.6 (24df)

Hence the calculated value of c^2 is less than the table value. The hypothesis is accepted. Hence there is no significant relationship between business and borrowings.

TABLE - 2
TYPE OF ORGANIZATION AND NATURE OF WORK UNDERTAKEN BY THE
RESPONDENTS

S. No	Nature of Work	Type of Organization		Total Respondents	Per centage
		Sole proprietorship	Partnership firm		
1.	Production	12	5	17	7.9
2.	Servicing	171	28	199	92.1
Total		183 (84.7)	33 (15.3)	216	100

Source: Compiled from primary Data. Figures in () indicate % to the total.

In this table it is clear that out of 216 sample respondents, 84.7 per cent are sole proprietorship and only 15.3 per cent partnership firms. Although partnership firms have the advantage of collective wisdom, sharing profits and reaping the benefits of division of labor, it comes only next to sole proprietorship.

Findings of the Study

Gender inequality is a problem felt by Indian society, especially in rural areas, from time immemorial. Any step towards attaining gender equality must be in the line of inculcating and developing women entrepreneurship and thereby ensuring women empowerment.

Keeping this view in mind, this study intends to evaluate the performance and problems faced by the women entrepreneurs for which the analysis of social and economic factors of the respondents is important. Following are the significant findings of their socio-economic background, which paves the way for the investigator to understand the performance and problems faced by the women entrepreneurs of four selected blocks.

Suggestions:

The present study mainly aims at evaluating the performance of the rural / urban women entrepreneurs functioning under the protective care of women Self-Help Groups (SHGs). However the study has revealed some of the problems faced by them in their trade. The following suggestions are tendered to competent authorities with the assurance that if they are carried out they are sure to mitigate their problems.

- Ø There is a general grievance among many respondents that training is not imparted to all the women entrepreneurs.
- Ø Procedure for bank loans may be made simple.
- Ø Support systems congenial for rural women entrepreneurship should be staffed with female workers in financial, commercial institutions, training, extension and consultancy services.

- Ø Role models or success stories of rural women entrepreneurs should be broadcast or projected through radio or television episodes to create a need within women to better their socio-economic status.
- Ø The respondents must be provided employment opportunities during non-agricultural season period in order to avoid borrowing money from the money lenders.
- Ø The role of supportive agencies like District Rural Development Agencies (DRDA), District Industrial Center (DIC), Tamil Nadu Corporation for Development of Women (TNCDW) and Non-Governmental Organizations (NGOs) must be made more dynamic and they must become more accountable and action oriented in fulfilling their targets.

Conclusion:

According to Mahatma Gandhi, 'Villages are the pillars of one nation'. The Self-Help Group is definitely the backbone of the village people. And the Self-Help is the best help. So these kinds of self help groups support the isolated people and developed the village in economical and atmospheric level. The village people also most welcome these groups. These kinds of Self Help Groups achieve more than the government sector. The government should encourage these kinds of young and energetic Self-Help Groups. It will definitely raise the national economic level.

DAIRY SECTOR IN BUDALUR BLOCK OF THANJAVUR DISTRICT**Introduction**

Dairying is the production and marketing of milk, usually cow's milk and its products, it includes the care of cows, their breeding, feeding, management, and milking. The milk must be collected, processed into dairy products, and marketed. All of these operations have been studied and improved by physiological, economic, and marketing research and development. (Encyclopedia of Britannica)

Dairying is playing a significant role in strengthening rural economy. It provides definite and regular income and employment to 11 million people in principle status and 9 million in subsidiary status. Women constitute 71 percent of the labour force in this sector. (Economic survey 03-04). The livestock sector provides an important role in the national economy and contributed over 5.26 per cent to the total GDP during 2006-07 and contributes about 31.7 per cent GDP from agriculture and allied activities.

India ranks first in the world in milk production, which increased from 17 million tonnes in 1950-51 to about 104.84 million tonnes by 2007-2008. This success story of Indian milk production is the "Operation Flood" one of the world's largest dairy development programs, which helped to create strong network and linkages among millions of smallholder producers, processors and urban consumers, was an important instrument in achieving this success.

The per capita availability of milk has also increased from 112 grams per day in 1968-69 to 252 grams during 2007-2008. But still low compared to the world average of 265 grams/day (Economic survey 08-09). This deficit which is of a very serious nature may affect the health and vitality of the nation as milk is the only source of animal protein for a large number of people in this country. In addition to that there is also the problem with regard to the availability of milk. It has been largely varied across the regions or

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states. The main constraint to less availability and large variation across the regions is not only limited to the production of milk but also purchasing power of the people as well as inadequate handling and processing facilities and marketing infrastructure. Though per capita availability of milk in India has increased, demand for milk is increasing day by day owing to increase in population and individual income.

Problem faced by the dairy Farmers

Although there is remarkable improvement of dairy enterprises in recent years, the dairy farmers faced some problems in developing their dairy enterprise the study area. The major constraints hindering the development of dairy sector in the study area are.

a) Shortage of feed:

Shortage of green fodder and feed concentrate is the root cause of poor performance of dairy sector in general as the genetic milk production potential of cross breed animals could not be exploited fully in the absence of proper nutrition.

b) Lack of marketing facilities:

Due to lack of marketing facilities and extension services, there is poor perception of the farmers towards commercial dairy enterprise as an alternative to other occupations.

c) Insufficient veterinary services:

Due to lack of proper veterinary extension system there is poor perception to the farmers towards dairy enterprise as viable alternative to crop husbandry.

d) Deprived of getting remunerative price:

Lack of access to urban markets for remunerative prices of milk and milk products is one of the major constraints affecting the development of dairy farming.

e) Lack of proper livestock planning:

Lack of specific state policy on animal breeding and strategies for livestock development in the state plan with proper perspective.

f) Prevalence of middleman:

Unorganised fragmented market for milk involved a chain of middleman who reap the actual benefit depriving the producers from their due share.

Suggestions

The following suggestions are provide for the development of the dairy sector in the study area

- 1) **Adequate veterinary services:** The veterinary facilities available in the study area are not adequate and sufficient. Steps should be taken to provide adequate and proper veterinary facilities in the study area.
- 2) **Credit facilities:** The financial institutions can also play a significant role in improving the processing infrastructure by extending credits to good working SHGs and milk producing units.
- 3) **Artificial insemination:** The state veterinary department should create facility for artificial insemination and pregnancy test in the door step of the dairy farmers.

Conclusion:

The findings of the study revealed that the composition of milch animals with adequate number of cross breed animals could boost up milk production significantly. The farmers in the study area found to have used their wisdom to exploit the resource substantially in a sustainable manner. The sustainable development of dairy farming in the state through optimum utilisation of natural resources followed by health-care of livestock, improvement of breeding through Artificial Insemination, timely vaccination can go a long way in the field of animal husbandry in general and dairy sector development in particular. The potential of indigenous livestock needs to be tapped by improving nutrient fodder resources. The dairy enterprise in the study area has been able to improve the economic condition and standard of living of the dairy farmers. This created a positive impact in creating of gainful employment opportunity and income to the people living in the rural areas.

AN ECONOMIC ANALYSIS OF FLORICULTURE IN TRICHY DISTRICT

INTRODUCTION

Flowers are one of the most beautiful gifts of nature to man. Their beauty and fragrance bring joy and happiness to our lives. Flowers in great variety are always the main attraction. Their colour combination, fragrance, and the skill with which they have been grown and displayed count a lot. There has been a complete change in the garden style in modern landscaping designs as it turns on labour- saving ideas and functional suitability in view of the high cost involved.

Floriculture, till recently considered to be a simple garden activity to get flowers for religious offerings and home decoration, has emerged as an important agri-business enterprise. International Association of Horticulture Producers, publishes regularly their international statistics on worldwide production and trade. India is among the important agriculture based economy in the developing world and has in the recent years recognized the importance of floriculture as a segment of agri –business.

Agriculture development in our country is largely public sector guided and supported. Even though floriculture has emerged as a viable economic option in the diversification of agriculture in the last decades or so, there is yet no strategy for a planned development of the sector.

Floriculture sector plays a key role in Indian economy. Though its contribution to the agriculture sector is the highest, the public investment in this sector is inadequate to ensure sufficient growth in future. No doubt, the state and the central governments have initiated various development programmes and policies which are now being debated. For example, the training facilities, flower exhibition, display of flower varieties to the cultivator have been encouraged and successful across different categories of farms and regions.

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DETERMINANTS OF INCOME FROM FLOWER CULTIVATION PER ACRE

In order to identify the determinants of income from jasmine per acre, multiple regression analysis is carried out taking income per acre as the dependant variable and the independent variables as labour cost per acre, pesticide cost per acre, fertilizer cost per acre and other cost per acre which includes plant and transportation cost.

The result of multiple regression analysis given below.

R	R Square	Adjusted R Square	Std. Error of the Estimate
.835	.697	.605	5871.08302

From the above model summary table the R^2 value is 0.697 means that the variability in the income per acre is explained to extent of 69.7 per cent by the above said independent variables.

Model	Unstandardized coefficients		Standardized coefficients		sig.
	B	Std. Error	Beta	t	
(Constant)	-1863.26	4981.609		-.374	.709
Labour cost per acre	.286	.770	.032	.372	.711
Fertilizer cost per acre	14.956	8.628	.408	4.122	.000
Pesticide cost per acre	7.271	2.957	.234	2.459	.015
Total cost per acre (plant-transport)	.831	.501	.137	1.622	.107

From the above table we observe that fertilizer cost per acre, and pesticide cost per acre are significant variables. Thus, the multiple regression becomes as $y = -1863.286 + 14.956x_1 + 7.271x_2$. In the above model x_1 is fertilizer cost per acre x_2 is pesticide cost per acre. Further the partial regression coefficient for fertilizer cost per acre is 14.956 which means that for every one rupee invested in fertilizer cost, the income increases at the rate of 14.956 rupee.

Similarly the partial regression coefficient for pesticide cost is 7.271 which means that for every one rupee invested in pesticide cost, the income increases at Rs. 7.271. Thus, from the above regression analysis, the determinants of income from Jasmine per acre are fertilizer cost and pesticide cost.

SUGGESTIONS

Floriculture is fast developing into an important economic activity. The world wide demand for flowers and flower products is also increasing due to the GDP increase in many countries. Though, India's participation in the world trade is very successful. Unlimited opportunities are created by the global trade deficit and the liberal policies of the country. The producer and the country should stand to gain in the process of developing this economic pursuit as also the consumer.

CONCLUSION

The analysis indicates that the floriculture offers promising opportunities even on smallholdings on sound economic lines. This is more feasible because the initial investment requirements for floriculture is low. Floriculture in the district is only in the nascent stage and there is great scope to transform it on commercial lines. This also helps in utilizing underemployed or employed family labourers especially women labourers to involve themselves in the production and marketing of flowers by adopting intensive floriculture practices. This will be ideally suited for generation of employment and income generation not only in the village but also throughout the world. The traditional flowers widely cultivated in this district are said to have good market in the middle east apart from the wide domestic market it enjoys. There also seems to be a shift to floriculture in the occupational pattern of the people. Floriculture has the scope of providing employment to the rural folk throughout the year. Thus it will eliminates unemployment and poverty if it is done on professional lines.

ATM BANKING IN TRICHIRAPPALLI DISTRICT & TRICHIRAPPALLI TOWN (WITH SPECIAL REFERENCE TO SBI ATMS)

More people are now moving towards using the ATM for their banking needs. According to a 2006 survey by Bank net India, 95% people now prefer this modern channel to traditional mode of banking. Almost 60% of people use an ATM at least once a week. "The spread of ATMs has increased from 34789 in March 2008 to 43651 in March 2009 in India"². Increased ATM usage is also helped by the fact that customers have now the flexibility of using ATMs of other banks, as most of the banks are part of major interbank networks like National Financial Switch (NFS), Mitr, BANCS, Cash tree and Cash net. The interbank networks have brought together ATMs of several banks so that consumers would gain access to any of the participating banks' ATMs. Banks find it cheaper to pay membership fees to these networks as against setting up additional units in expensive-to-deploy areas.

ATMs are now seen to be more than mere cash dispensing machines. Customers use ATMs to recharge their mobile phone pre-paid connections, pay their utility bills, even mutual fund transactions-making them at par with flexibility given in internet banking-only more secure. Of the value-added services provided at ATMs, bill-payment is the most used service, followed by prepaid mobile talk-time recharges. However, still about one third of the respondents do not use any value added services at ATMs. Thus ATMs provide great potential to strengthen the national payment infrastructure, to offer customized services and to reduce the administration cost of the bank.

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Table 1
Growth of SBI ATMs in Trichy District from 2005-2009

Year	Number of ATMs	Increase over the previous year	% of Increase over the previous year
2004-05	11	---	---
2005-06	16	5	45
2006-07	24	8	50
2007-08	26	2	8
2008-09	68	42	162

Source: SBI's Regional Office, Trichy.

Table 2
Growth of SBI ATMs in Trichy Town from 2005-2009

Year	Number of ATMs	Increase over the previous year	% of Increase over the previous year
2004-05	11	---	---
2005-06	14	3	27
2006-07	20	6	43
2007-08	22	2	10
2008-09	55	33	150

Source: SBI's Regional Office, Trichy.

From the tables 1 & 2 it is clear that the % of increase in the number of ATMs in Trichy District & Trichy Town is maximum in the year 2008- 2009 i.e. 161% & 150% respectively. The growth rate is minimum in the year 2007-08. This is mainly attributable to the prolonged rate negotiation between the ATM supplier NCR & the SBI.

Table 2

Total number of SBI customers, SBI ATM cards issued & Activated in Trichy Town as on November 2009

Region	Number of customers	Number of ATM cards issued	Number of ATM cards activated	% of cards activated to cards issued
Trichy District	3,06,041	2,42,386(79)	1,81,793	75
Trichy Town	2,11,608	1,85,847(88)	1,79,990	97

Figures in brackets indicate % of cards issued to total customers

Source: SBI's Regional Office, Trichy.

An analysis of the above table reveals the fact that the penetration of ATMs is more in Trichy town than in villages of trichy district.

To conclude the State Bank of India to ensure & prove its Vision (To create a large vibrant ATM self – service channel spread across the country that offers a wide range of services to enhance customer convenience and also enable the bank to attract new customers) has expanded its ATM foot print taking its total ATM installed base to 15114 as on November 2009. In Trichy District and Trichy Town the growth of ATM in 2009 over the year 2008 stands at 162% and 150% respectively. Further the percentage of ATM to branch has come to 152 and 189 in Trichy District and Trichy Town in 2009. The percentage of cards activated in Trichy Town as on November 2009 has reached 97%. To manage the expanded the network of ATMs the SBI has entered into an agreement with Tata Communications and C Edge for the roll out and management of 500 ATMs.

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GENDER BIAS AMONG URBAN UNORGANISED WORKERS IN PUDUKKOTTAI TOWN

Introduction

Women's participation in the process of economic development of a country is very significant. In recent times, participation of women in the workforce has increased around the world. Generally women workforce are being called upon more and more to find work in the unorganised sector in developing countries like India (Narasaiah, 2006). In India, the women workforce in the organised sector and unorganised sector were 49.49 lakhs and 1,220 lakhs in 2001 respectively (Census, 2001). The Socio-Economic status of women in the unorganised sector is very vulnerable due to existence of gender bias. Tripathy (2007) observes that gender gap appears higher in the unorganised sector than the organised sector due to two sets of discriminations like Pre-market discrimination that means unequal opportunities to develop talents and abilities prior to employment such as education, training and experience, so on and Cost-market discrimination that means unequal remuneration to workers who have equal qualities to do work such as differential wages for similar work. In this connection Haq (2001) reveals that many women are employed only in low paid, insecure and low level jobs where gender bias is at its peak. Why does this discrimination happen? This question needs to be answered in order to get some insight into the problems pertaining to gender bias and eventually overcome them.

Statement of the Problem

The employment of women has increased everywhere in the world, especially in the unorganised sector. According to Employment-Unemployment Survey NSS 55th Round (1999-2000) 55.49 million workforce were engaged in the urban unorganised sector, out of which 45.13 million were male and 10.36 millions were female. Most of the women

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workforce in the urban unorganised sector tends to be migrated workers from the rural areas. People who migrate from rural to urban areas in search of employments are ready to take up any sort of job rather than good because they live below the poverty line. These women workers are more vulnerable because equal opportunities are denied through gender discrimination and thereby women workers are exploited more in the urban unorganised sector (Haq 2001). So, in urban unorganised sector existence of economic and social exploitation cannot be ignored and the case of gender discrimination is even more significant. In this direction the present paper focuses on gender bias among unorganised sector workers in Pudukkottai Town.

Objectives

The present paper is based on the following two objectives which are focused on gender bias among the urban unorganised workers:

1. To analyse the factors that determine gender bias among wage workers in the urban unorganised sector in Pudukkottai town.
2. To study the wage discrimination between men and women workers in the urban unorganised sector.

Methodology

The present paper has chosen to study the gender bias among workers in the urban unorganised sector in Pudukkottai town, Pudukkottai District. Pudukkottai District was chosen because according to the 2001 Census Pudukkottai District possesses sex ratio in favour of women that is 1000:1015. This paper is based on primary data collected through a structured questionnaire employing and the purposive sampling is used for selecting the sample. The salesmen and saleswomen of the textile shops with less than 10 workers were chosen for this study. The category of workers in the unorganised sector was chosen to be persons employed in the textile shops as they employ both men and women in the same category. Shops with less than 10 workers were selected as such shops truly represent the unorganised sector. The total sample size was taken as 60, out of which 30 respondents were men and 30 respondents were women.

Findings and Discussions

The problem of gender bias in the urban unorganised sector have been analysed and the findings and discussions have been classified under five heads, viz., Wage, Work hours, Age, Experience and Responsibility.

1. Wage

It can be seen from Table 1 that the average monthly wage of saleswomen is less than the average monthly wage of salesmen. Both saleswomen and salesmen work for equal hours and their levels of education is also similar, but still wage gap is present between salesmen and saleswomen in the urban unorganised sector.

2. Work Hours

From Table 1, it can be observed that there is no significant difference between the work hours of salesmen and saleswomen and hence, there is no gender discrimination in terms of work hour.

Table 1 Age, Work hours and Wage of Salesmen and Saleswomen

Factors	Salesmen		Saleswomen		Z _c value	Level of Significance	Result
	Mean	S.D.	Mean	S.D.			
Age in years	27	8.3	22.53	3.62	2.72	1%	Accepted
Duration of work in hours	11.58	1.92	11.25	0.63	0.89	5%	Rejected
Wage in Rupees	2350	844.88	1360	307.25	6.03	1%	Accepted

Source: Computed

3. Age

It can be seen from Table 2 that there is significant difference between the range of age of salesmen and saleswomen. The saleswomen's range of age is shorter than that of salesmen.

Table 2 Maximum and Minimum range of Age, Work hours and Wage of Salesmen and Saleswomen

Factors	Salesmen		Saleswomen	
	Maximum	Minimum	Maximum	Minimum
Age in years	48	17	31	18
Duration of work in hours	15	4	10	12
Wage in Rupees	1,000	4,500	1,000	2,000

Source: Computed

4. Experience and Monthly Wage

The results of the analysis in Table 3 ascertain that there is no significant relationship between monthly wage and experience of saleswomen. So, there is gender bias in terms of determining the salary on the basis of experience of saleswomen.

Table 3 Relationship between Wage and Experience of Salesmen and Saleswomen

Workers	Correlation value	t_c value	Level of Significance	Result
Salesmen	0.45	2.71	5%	Accepted
Saleswomen	0.07	0.07	5%	Rejected

Source: Computed

5. Responsibility

The results gathered from the analysis in Table 4 suggest that there is significant difference between extra responsibility of salesmen and saleswomen. There is gender bias in terms of extra responsibility of salesmen and saleswomen.

Table 4 Allocation of Extra Responsibilities of Salesmen and Saleswomen

Extra Responsibility	Salesmen		Saleswomen		Total No. of Respondents
	Observed Value	Expected value	Observed value	Expected value	
High level	23 (77)	17.5	12 (40)	17.5	35
Low level	01 (3)	9.5	18 (60)	9.5	19
No responsibility	06 (20)	3	0	3	06
Total	30	30	30	30	60
$\chi^2 = 24.718$					

Source: Computed

Note: Values within the parenthesis indicate the respective percentages.

Suggestions

The findings and discussions of this paper provides that the problem of gender bias in the urban unorganised sector come out in the form of age discrimination, wage discrimination and allocation of responsibility discrimination. Here some appropriate suggestions have been given to mitigate and eradicate the problem of gender bias in the urban unorganised sector.

1. Women in the unorganised sector work more than eight hours and do not enjoy any leave facilities such as maternity leave, medical leave, etc. This is very difficult for women, as they have to work both in the household and in the work place. To avoid these kinds of exploitations against women workers in the unorganised sector and considering the biological challenges faced by women, the government should take action to regulate the working hours of women workers in the unorganised sector by enacting a law in this regard which may also ensures adequate rest for such women at the right time.

2. In India, the income variation between men and women in the unorganised sector is very high. The Social Security Act for the Unorganised Sector Workers (2007) that has been introduced in India does not focus on equal remuneration to men and women workers.

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Tourism Potential in Trichirappalli District

Introduction

Tourism is one of the fastest developing industries of the world. It provides healthy leisure to the people worn out due to dull, dreary, and strenuous daily routine. Trichirappally better known as 'TRICHY' is situated on the banks of river cauery and middle of the state Tamilnadu. The land mark of this city is 'Rockfort' – and unique natural structure. Trichy's prosperity was linked to the fortunes of South India. Trichy was the chola citated during sangamn age. During carnatic wars of the 18th century, Trichy was often in the forefront of events.

Existing infrastructure

Trichy is now an Industrial can be and it has various heavy industries like BHEL, Locomotive construction workshop etc, Hindustan small Arms factory etc. Traditional cotton hand wearing and cigar making cottage industries are also flourishing here and Synthetic Diamonds are produced in age scale around here. Trichy has its own International Airport, Railway Stations, Bus stations and terminuses. City buses and Autos are popular here and call taxis are available.

There are hundreds of well equipped Hospitals with world class professional are available. That is why now this ahead in the Medical Tourism Sector. There are many star hotels and so many budget hotels are available for your comfortable stay at Trichy.

Tourism Resources

Major Attractions – Abudance of Splendor

Trichy is a temple town and its major attractions revolve round its magnificent temple architecture that have withstood the test of time and effect Trichirappalli has surely made up its mark on international world map with the largest Sri Ranganathswamy Temple architecture and landmarks like Rock fort temple.

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Rock fort temple

The Rock Fort Temple is a combination of three temples, of which the Sri Thayumanaswamy Temple dedicated to Lord Siva – halfway up is the most famous and visited temple complex by the devotees.

Sri Jambukeshwara Temple

This Temple is located 5km from the town, dedicated to Lord Siva. It is built around a Siva Lingam, which is completely submerged in water that comes from a spring in the sanctum sanctorum. Non Hindus are not allowed inside the temple.

Samayapuram Mariamman Temple

This Temple is located 12km north from the city. People believe that the deity cures diseases such as small pox and chicken pox.

Srirangam

The temple of Lord Sri Ranganathar is one of the largest in India. The walls and surroundings of the Temple are rich in brilliant carvings and wonderful paintings that have proved to be a great attraction for the Tourists.

Alagia Manavalan Temple

This is the Divya Desam Vishnu Temple. Being located 2km northwest of Trichy, it is also the place of Tiruppaana Alwar

Trichy City Climate

Trichy experiences a Tropical climate. During summers the maximum temperature records 37 degree Celsius and in winters it drops to a low of 20 degree Celsius.

Accommodation

Trichy provides accommodation for all kinds of Travelers. Hotels ranging from star category to budget lodges that cater to the basic needs with reasonable price. Hotels that stand out from the rest of the crowd are hotel sang am, Hotel Sangam, Jenneys Residency, Hotel Aristo and Hotel chitra.

Shopping centers at Trichy

Trichy has a lot to offer ranging from colourful flowers, handicrafts, brassware, carpets and jewellery. One can see many wholesale and retail shops here. Old Gandhi

Marked, Khadi kraft, Heritage Arts Emporium, Sri Renga Living Art, Srirangan stores and Flower Bazzar at the saathara street are the popular shopping centre of Trichy. Trichurappalli city information Guide for hotel's in Tiruchirappalli. Best Time to visit Trichy is from October to March. Excursion places Near by Trichy is Viralimalai (30 km) kallanai (24 km) Sittanavasal (58km).

Impact of Tourism Industry

Trichy has the potential for Tourism Industry. Until up to recent past, there was no professional body in the city to tap the potential of the city. The Airline industry, Hospitality Industry, Travel Industry, Tour operators, District Tourist officer, emphasized the need for a professional body to take the challenge in the interest of the district. Tourism industry is relatively labour intensive tourism is particularly relevant to the developing countries because it is a service industry and generate employment and there by helps in the improvement in standard of living. Hence the positive impact of tourism is direct and industry employment generation foreign exchange earning of the nation or state hosting the guests, improvement in the standard of living of local people, cross cultural and educative advantages.

Need of the Hour

The policy planners should initiate steps to develop more attractive tourist destinations. A need of the hour is to. Promote the facilities in all the tourist center and to develop tourism. Proper training should be given to the tourist guides and tourist information offices should be opened almost at all destinations.

In conclusion, it is safe to say that there exists a great tourism potential in the state which provides enough scope for growth if a aggressive and effective marketing and promotional strategies in all tourist generating centers in the state are implemented.

Conclusion and Suggestions

Tourism in Trichy is being recognised as a source of employment and an important factor in the growth and prosperity of the state. The policies and regulation on the growing tourism industry in the state should be made growth Oriented .Tourism in Trichy, like other economic activities, flourishes best into the context of general economic policies and programmer designed to lead to the optimum growth of the economic of a District as a whole.

THE SOCIO ECONOMIC PROFILE OF WOMEN SLUM WORKERS IN TRIUCHIRAPPALLI – TOWN

Women workers in slums suffer a lot due to poverty, illiteracy improper sanitation facilities and malnutrition. Slums are the result of increased population and influence of western civilization. Women in slums are exploited financially. They are unable to enjoy the privileges as enjoyed by the women in the organized sectors. Being illiterate and unorganized they suffer a lot and unable to claim their legal rights. Due to the poverty of their families they are compelled to work as servant maids, sweepers where they cannot get adequate income. So they live in poverty.

Objectives

- To study the economic status of women slum workers in Tiruchirappalli town through the indicators like income, expenditure saving and debts.
- To find out their social problems.
- To study the quality of housing facilities.
- To find out whether the women workers are aware of the welfare opportunities introduced by the government.
- To suggest the ways and means of improving the socio economic conditions of women slum workers.

Methodology

To study the socio economic condition of women slum workers in Tiruchirappalli town, data had been collected from 250 respondents of slums in Trichy town. It included respondents of Sirappa Nagar, Devadanam, New Street, Oda Street, Indira nagar Slums. Primary data were collected through field survey by way of observation, actual visits to the various slums and through interviews.

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Occupational Distribution of the Respondents

S.No	Qualification	No. of Individuals	Percentage
1.	Government Employees	21	8
2	Agricultural workers	3	1
3	Household Workers	76	31
4	Others	65	26
	Total	250	100

Source : Primary data

The Table shows the occupational structure of the respondents. Only 8 percent of the respondents work as government employees. It may be because of inadequate higher educational qualifications. Greater percentage of the respondents are engaged in household work and construction work.

Due to illiteracy they work as servant maids and construction workers. Those who are in governmental jobs alone have stable income.

Classification of the Respondents According to their Monthly Family Income

S.No	Income Group	No. of Respondents	Percentage
1	Low Income Group (Below Rs.3000)	85	34
2	Middle Income Group (Rs.3000 to Rs.4000)	125	50
3	High Income Group (Rs.4000 to Rs.6000)	40	16
	Total	250	100

Source : Primary Data

From the study it is found out that 34 percent of the respondents belong to the low income group. 50 percent of the respondents belong to the middle income group. Only 16 percent of the respondents belong to the high income group. Economic status of the greater percentage of the respondents is poor. **Findings**

Respondents chosen for the present study belong to the backward class and scheduled caste. 66 percent of the respondents belong to the backward class and the rest of the respondents belong to the scheduled caste.

Respondents belong to the Hindu Muslim and christen religion were chosen as the samples for the present study. 78 percent of the respondents belong to the Hindu Religion, 16 percent belong to the Muslim religion and only 6 percent belong to the Christian Religion. 74 percent of the respondents belong to the productive age groups that range between 20 to 50 years. Only 5 percent of the respondents belong to the age group of above 50 years.

The respondents are aware of the advantages of small families. The family size of the 60 percent of the respondents is less than 4 members. Respondents belong to the joint family and nuclear family were chosen as the sample respondents. 87 percent of the respondents live in a joint family. It is because of the fact that the responsibilities are less in the case of joint families.

Even though the respondents are aware of the importance of education, only 5 percent has the chance to go for higher education. Regarding the occupational distribution of the respondents, only 8 percent of the respondents work as government employees. Rest of the respondents work as construction workers, agricultural labourers and household workers. It is found out that greater percentage of the respondents belong to the unorganised sector, where they cannot get regular and adequate income. It is one of the reasons for their poor socio – economic status. 20 percent of the respondents dwell in own houses and only 17 percent of the respondents dwell in pucca houses. It is another indicator of the poor economic status.

It is found out that only an insignificant percent of the respondents do not have electricity facilities. 84 percent of the respondents have municipal water taps in their houses.

Even-though they have electricity, drinking water facilities, they suffer due to improper sanitary and drainage facilities. 90 percent of the respondents use only public toilets.

Greater percentage of the respondents work as servant maids and construction workers where they cannot get adequate and regular income. Their monthly family income ranges between Rs.1000 to Rs.6000, which is not adequate enough to maintain their families. So greater percentage of the respondents borrowed money for the maintenance of their families.

72 percent of the respondents do not possess any asset. It is because of their poor economic status.

In the case of all income groups (Low, Middle and High) greater percentage of income is spent on food.

75 percent of the respondents are unable to save. It is also an indicator of poor economic status.

84 percent of the respondents borrowed money for various purposes. 60 percent of the respondents borrowed money for the maintenance of their families.

87 percent of the respondents borrowed money from the money lenders. The respondents did not prefer banks due to the procedural delays and difficulties.

74 percent of the respondents are affected by diseases like Asthma, tuberculosis, malaria, Fever and so on. Improper Sanitary facilities, seepage of drainage water due to improper drainage facilities, breeding of mosquitoes and insects due to water logging caused Air and water pollutions.

52 percent of the respondents availed medical facilities from government hospitals. Only 48 percent of the respondents availed medical facilities from private hospitals.

Conclusion

Greater percentage of the women workers in slums belong to the unorganised sector, where they are exploited not only financially but also subject to a great deal of physical harassment. It is because of the fact that they do not have any social protection. They are unable to enjoy the privileges as enjoyed by the workers in the organized sector. The socio-economic status of the women workers are poor due to their poverty. Poverty is due to the lack of employment through-out the year. Poverty is not only the cause but also

the effect of their poor economic status. So the women workers in slums and their families live in vicious circle of poverty.

Suggestions

Improper drainage and sanitary conditions affect the health of Men, Women and children of slums. So proper drainage and sanitary facilities should be offered.

Essential infrastructure should be provided for the upliftment of slums.

Primary Health Care centres should be set up in every slums.

Measures must be taken to educate women which will help not only to uplift women but also to uplift their families.

Environmental awareness has to be created because unhygiene environmental conditionals affect the health of women and children.

So it is to be recognized that the problems of women in slums is a national problem. Thus it requires a proper and efficient national policy. Eventhough many measures have been taken, the government should see that whether the benefits actually reach the beneficiaries.

ANALYSIS OF AGRICULTURAL CREDIT: A CASE STUDY OF A VILLAGE IN TRIUCHIRAPALLI DISTRICT

According to NSSO, indebtedness is highest in Andhra Pradesh (82 percent) followed by Tamil Nadu (74.5 percent) Punjab (65.4 percent) Kerala (64.4 percent) Karnataka (61.6 percent) and Maharashtra (54.8 percent). So the farmers have to depend to a large extent on borrowed funds. This has naturally increased the demand for credit of a large number of farmers.

Objectives of the study

To assess the factors that influences the percentage share of agricultural finance from different sources and utilization and repayment pattern of such credit among different categories of farmers and to find out the problems faced by the farmers in repaying the loans and steps taken by the banks for recovering the loan.

Hypothesis

The socioeconomic background of the farmers, that influence the percentage share of credit from different sources, credit utilization and repayment patterns.

Methodology

Sampling technique

A multi-stage sampling technique has been adopted for the study.

I Selection of district

II Selection of a block

III Selection of village

IV Selection of sample respondents

It is explained in chart.

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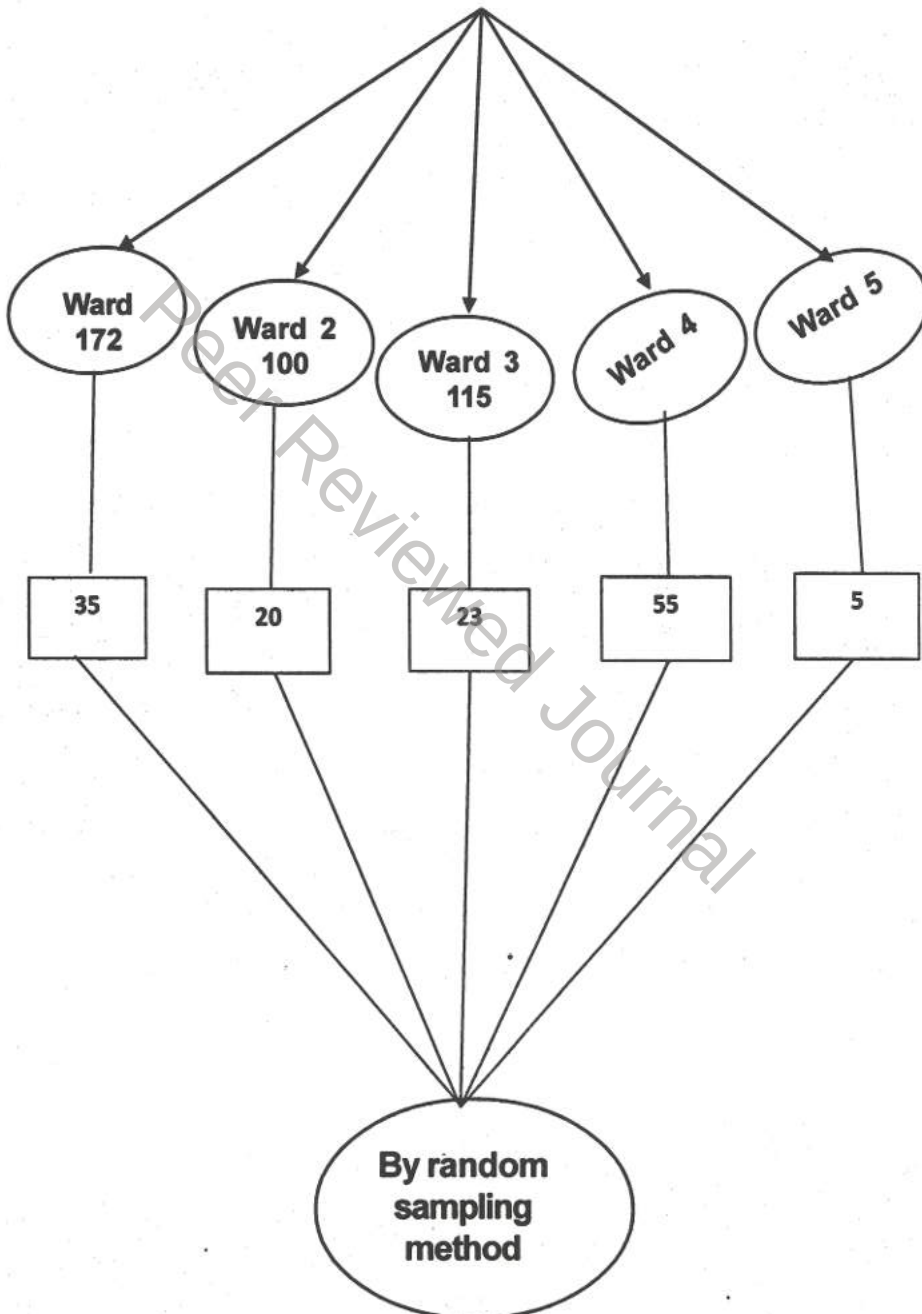
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The findings that emerged from the analysis of primary household survey are as follows:

In study area 136 households out of 138 from Hindu religion and two households belong to muslim. In the case of caste, major portion of respondents come from oorali gaundor (71 percent). They come under MBC caste. In the case of occupation 42 respondents are engaged in agriculture activities only and 87 respondents are engaged in agriculture and allied activities. Only few respondents are engaged in other activities like business, bus driving etc. Small and large families are having less overdues compared to medium size of families. The study of respondents' income level is important because it explains the status of the respondents and their capacity to purchase things, maintain family expenditure and medical expenditure etc.

Income is earned from dairy farming, from goat, from bullock (bullock owners used the bullock for rental purposes for other's farm land), agriculture operation, non agriculture occupation (money lending business, tailoring work, cable connection, income from leather bag company, tea shops, centering work, income from house rent etc). About 40 percent of the respondents have borrowed from institutional sources. About 10 percent of the respondents have borrowed from non-institutional. Distribution of credit by purpose and sources reveals that major portion of credit (i.e.) 38.2 percent has been provided as the crop loan. So, prime importance of institutional credit is crop loan. The non institutional credit was mainly borrowed for unproductive purposes. In the case of productive purposes, only 6.5 percent has given. For the purchase of fertilizers and 3.6 percent for to purchase milch animals. Due to the easy and timely availability of credit in non-institutional sources the farmers go for non-institutional sources to meet day to day expenses and unexpected expenses. This study shows that both commercial and co-operative bank face the problem of overdues. Co-operative bank manager in the study area stated that (2001-02 to 2004-05) there is no overdue in his bank (100 percent recovery) But in 2005-06 government waived the loan amount. Due to announcement of loan waiving the borrowers became defaulters.

Chart
Methodology
Selection of households Total households in the selected village 686



A STUDY ON THE SCHOOL DROPOUTS IN ANBIL VILLAGE IN TIRUCHIRAPALLI DISTRICT

The school dropout is a social problem if there is a cracking foundation in education it will significantly affect the growth of the economy. The present paper studies the school dropouts in Anbil village, Lalgudi taluk, Trichy district. The village is having a total population of 3992 out of which 1550 are males and 2477 are females. The main occupation of this village is agriculture and its allied activities.

OBJECTIVES:

- ❖ To find out the number of dropouts in the study area.
- ❖ To find whether the dropouts rates are higher among boys or girls.
- ❖ To identify the reasons for leaving the school.

METHODOLOGY:

The present study is based on both primary and secondary data. Primary data have been collected from 100 respondents through questionnaire and personal interview. Secondary data have been collected from journals and magazines.

The objectives of this paper are analyzed as follows.

AGE :Age wise dropouts in the study area are shown in the following table.

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Table No-1 Age wise dropouts

Age	Number of Dropouts	Percentage
9-11	9	9
11-13	27	27
13-15	49	49
15-17	15	15
Total	100	100

Source: primary Data

The above table explains that the dropout rate is higher in the age group of 13-15. The poor parents are forced to pension of their children from school as soon as they are ready for the jobs.

The standard wise classification of dropouts is shown in table no.2

Table No 2 Standard wise classification of the dropouts

Standard	No of Dropouts	Percent
1	0	0
2	1	1
3	5	5
4	3	3
5	11	11
6	16	16
7	9	9
8	23	23
9	17	17
10	8	8
11	-	-
12	7	7
Total	100	100

Source: Primary data.

The dropout rates are higher among boys and girls who studied 8th and 9th standard.

Table No-3 Dropouts-Reason Wise

S.No	Reasons	No of Dropouts	Percentage
1	Lack of Interest	18	18
2	Repeats	37	37
3	Poor	23	23
4	Loss of Parents	4	4
5	Care of Another Children	7	7
6	Fear of Punishment	5	5
7	Puberty	3	3
8	Sickness	3	3
	Total	100	100

Source: Primary data.

The above table explains lack of interest repeats and poor economic condition are the main reasons for dropouts.

FINDINGS:

- ❖ The problem of dropouts at the middle school level is still high in Tamil Nadu.
- ❖ Majority of the dropouts are in the age group of 11-15.
- ❖ Majority of the dropouts discontinued their study from 8th standard.
- ❖ Lack of interest, repeats and poverty are the main reasons for dropout.

- ❖ The present position of the dropout shows that 65% are working as daily wage earners.
- ❖ In this study dropout rates are high among girls compared to boys.

CONCLUSION:

A majority of the children dropped out in the middle because their parents expressed their inability to meet their educational expenses. Any attempt to eliminate wastage calls for providing universal free and compulsory elementary education. The Government should take steps to reduce the dropout rates. State Government's policy on school education, social infrastructure and technical progress is gradually accelerating the process of social and human development. Combined efforts of all, including the Government, the politicians, the parents, NGO's and world organization may be of immense help for achieving success in this task of social reconstruction and development.

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**WEAT AND ITS IMPACT ON WOMEN ENTREPRENEUR'S
IN TRICHIRAPPALLI DISTRICT**

INTRODUCTION:

Women owned businesses are highly increasing in the economies of almost all countries. The hidden entrepreneurial potentials of women have gradually been changing with the growing sensitivity to the role and economic status in the society. Skill, knowledge and adaptability in business are the main reasons for women to emerge into business ventures¹.

In order to support the ever increasing need among the women to choose some kind of entrepreneurial activities, the women in informal sector were facilitated to have an Association to represent their issues collectively. Accordingly in June 2006, the Women Entrepreneurs Association of Tamil Nadu (WEAT) was formed with just seven members which has grown to more than 2000 members at present. The founder of this Association is Dr.N.Manimekalai, Director, Department of Women's Studies, Bharathidasan University, Trichirappalli. Her immense service towards the society had increased the participation of Women Entrepreneurs in the district through WEAT. Hence, everyday there are women registering for various entrepreneurial training and every fortnight an awareness programme is conducted by various department officials related to entrepreneurship and self employment.

OBJECTIVES OF THE STUDY:

1. To explain the role played by WEAT in Trichirappalli District.
2. To overview the training courses & supportive services offered by WEAT for Women Entrepreneurs in Trichirappalli District.
3. To find out the responsible factors for the poor performance of Women Entrepreneurs in Trichirappalli District.
4. To suggest measures for effective functioning of Women Entrepreneurs.

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METHODOLOGY:

The present study is based on the primary and secondary data. The primary data regarding the performance of WEAT have been collected from the WEAT office and the impact of WEAT have been collected from WEAT trained Women Entrepreneurs in Trichirappalli District. The secondary data have been collected from the Conference reports of WEAT and other reports from and Department of Women Studies, Bharathidasan University, Trichy & Web portals.

HYPOTHESIS:

There is a relationship between the supportive services of **WEAT** and number of Membership of Women Entrepreneurs in Trichirappalli District.

TABLE NO.1
TOTAL NO. OF SUPPORT SERVICES GIVEN BY WEAT IN
TRICHIRAPPALLI DISTRICT

Sl. No.	Support Services	2006-07	2007-08	2008-09	2009-10	Total
1.	Technical and managerial training	12	25	52	63	152
2.	Seminars and workshops and networking	24	30	48	54	156
3.	Business counseling	12	24	24	24	84
4.	Business consultancy	12	24	24	24	84
5.	Local / State / National/ International/exhibitions (for marketing of products)	1	2	2	2	7
6.						
Total		61	105	150	167	483

Source: WEAT conference Report.

The above table explains about the total number of support services given by WEAT in Trichi District from 2006 to till date. Incase of Technical and managerial training & Seminars, Workshops and networking programmes given by WEAT for Women Entrepreneurs is Continuously increasing from 12-63 and 24-54 programmes. Incase of

business counseling and consultancy activities during the year 2006 they were conducted every month for single meeting but after 2007 onwards monthly twice the time they are conducting the same meeting related to Women Entrepreneurs. It helps the Women Entrepreneurs to take decisions for their own business. Every year they are conducting 2 Exhibitions in collaboration with various financial corporations and Canara Bank, and some other Government Administrations. Freely they are providing Stalls to Women Entrepreneurs for making sales.

At present WEAT slowly spreading their wings and trying to lend a helping hand to other districts like Thanjavur, Salem, Erode and Dindigul, Kangeepuram, etc., Some of the WEAT projects in Trichirappalli District are considered as milestone of their efforts. They are the production of banana fiber and making recyclable cups, plates from arecanut leaves & Engineering units as a vendor of BHEL. Many products are being innovated for production with banana fiber including fabrics. This also has lot of export potential³.

TESTING HYPOTHESIS:

There is a relationship between the supportive services of **WEAT** and number of Membership of Women Entrepreneurs in Trichirappalli District.

TABLE NO.2
MEMBER OF WOMEN ENTREPRENEURS IN WEAT
(TRICHRAPPALLI DISTRICT)

Sl.No.	Year	Supportive services of WEAT(Jan.2006-2010)	Total NO. OF WOMEN ENTREPRENEURS
1.	2006	1	7
2.	2006-07	61	150
3.	2007-08	105	700
4.	2008-09	150	1500
5.	2009-10	167	2000

Source: Primary data

By using the Karl Pearson's Correlation Co-efficient method to test the stated hypothesis on the basis of above table (5) the result will be as:

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}}$$

If we use the above formula the value of $r = 0.967$.

So, we can prove that, there is a relationship between the Supportive services of WEAT and the number of membership in WEAT in Trichirappalli District. Because of the Supportive Services of WEAT had increased the number of membership from 7 to 2000 at present.

FINDINGS:

1. Lack of confidence is very high among the women entrepreneurs, because of low education & inferiority complex.
2. Due to family circumstances they are not able to concentrate in business.
3. Hundreds of women Entrepreneurs are received various training through WEAT. But nearly 10-25 of them are running business. Because of economical and social barriers the trained women entrepreneurs also could not come foreword to run business.
4. Most of the women entrepreneurs wanted to close their business because of high cost of raw materials.
5. After training and various seminars of WEAT the performance of women entrepreneurs are found to be better.

SUGGESIONS:

1. Advisory services on investments are needed especially for downtrodden for women entrepreneurs.
2. Family members can change themselves to believe, support and recognize the earning women entrepreneurs.
3. The government while granting loans under various financial schemes with subsidy should attach a provision for savings at the time of repayment. This savings in the long-run would prove to be self-supporting of women entrepreneurs.

4. The government should take full responsibility for providing raw materials especially for women entrepreneurs.

CONCLUSION:

Empowering women entrepreneurs is essential for achieving the goals of sustainable development and the bottlenecks hindering their growth must be eradicated to entitle full participation in the business. Apart from training programs, Seminars, Newsletters, mentoring, trade fair, advertisement and exhibitions providing investment is also can be a source for entrepreneurial development⁴. Because, Entrepreneurship is the only watchword to encourage, equip and facilitate the women to become economically and socially empowered. Let us try to eliminate all forms of gender discrimination and thus allow "WOMEN" to be an entrepreneur at par with men. In way the Association has been supporting all sections of women to become self employed and also become entrepreneurs.

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A STUDY ON SOLID WASTE GENERATION AND MANAGEMENT AT TIRUCHIRAPPALLI

INTRODUCTION:

Environmental problems in the past mainly included air pollution and water pollution. In recent years pollution caused by solid waste disposal has become a severe problem. Solid waste problems transcend traditional environmental boundaries and contribute to air and water pollution. The problem of waste disposal at present has been all the more aggravated by the over whelming presence of non-biodegradable wastes. An estimated 5,00,000 compounds are emptied into the environment as waste products of man's economic activity .

Solid waste management is one of the important obligatory functions of urban local bodies in India. The essential service is not efficiently performed by municipalbodies, leading to problems related to healthsanitation and environmental sanitation.

The present study aims at analyzing the problems related to solid waste management in Tiruchirappalli. In recent years with rapid Industrialisation and urbanization, Tiruchirappalli has become a sprawling city and its environment is deteriorating day by day due to location of ulavarsanthai, Gandhimarket, fish market, slaughter houses, beediworks, basketweaving, visitors , large number of pilgrims and foreigners. To simplify the procedure primary data were collected only from the Srirangam region of Trichy.

OBJECTIVES OF THE STUDY:

- To find out the composition of solid waste .

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- To know the quantum of solid waste generation.
- To analyse the expenditure incurred on solid waste management and disposal.
- To suggest measures for effective functioning of solid waste management system.

SCOPE OF THE STUDY

The quantity of municipal wastes generated is determined by geographic location, season of the year, collection frequency, characteristic of population, public attitudes and legislation. The importance of solid waste management grows at a faster rate than the population of our big cities. There are many questions still to be answered. It is hoped that this analysis will stimulate new ideas and improve the environment in which increasing millions are living.

METHODOLOGY:

The present study is based on both the primary and secondary data. Primary data were collected from the residents of Trichy. Secondary data were collected from the official records of Tiruchirappalli Corporation.

SOLID WASTE MANAGEMENT IN TRICHIRAPPALLI DISTRICT

TamilNadu consist of six Corporations, 152 Municipalities, 561 Special village Panchayat. Trichy corporation is one among them which stimulated during the past two decades by rapid industrial development and other developmental activities. The total population of trichy as per 2001 census is 746062 composed of 373541 males and 372521 females. The total number of households of Trichy in 175212.

The municipal authorities are responsible for the implementation of the provision of infrastructure development, for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes. The expenditure on solid waste management is a major expenditure of the municipality. The major receipt towards this expenditure comes from levy of the Scavenging tax.

SOLID WASTE MANAGEMENT SYSTEM

Particulars	Quantity
1. Estimated quantity of waste generates tones/day	340 MT
2. Composition of solid waste, tones/day	
I. Domestic waste	239.50 MT
II. Commercial waste	65.00MT
III. Industrial waste	4.50M
IV. Market waste	25.00MT
V. Bio-medical waste	Dealt with separately
VI. Street sweepings	5.00MT
VII. Drain cleanings	1.00MT
VIII. Construction material /debris	20.00MT

Source : www.trichy corporation . com

SOURCES OF SOLID WASTE GENERATION IN THE STUDY AREA

Markets, industry, hospitals, school, college are main sources of generation of municipal solid waste. Solid wastes are waste generated by business premises, shops, offices, department stores, institutional waste, schools, college, hospitals, large hotels, restaurants, markets selling vegetables, fruits, fish, community halls etc. At Srirangam apart from the local population living in hundreds of flats, individual housing accommodations, the floating population on an average estimated to be ranging between 10 to 20 thousands are responsible for solid waste generation. To cater to the needs for food, snacks etc. well established hotels, restaurants, tea shops and road side fast food shops are running in Srirangam.

PERCAPITA GENERATION AND EXPENDITURE INCURRED ON SOLID WASTE MANAGEMENT IN SRIRANGAM.

There are severe problems related to solid waste management by the municipal bodies like insufficient finances to provide effective waste collection and disposal, inappropriate machinery and lack of peoples' participation.

Ward number	population	Generation perday (tons)	Expenditure perday	Percapita generation	Percapita expenditure
I	13491	2.58	5722.17	192	42.41
II	14258	2.96	4719.00	208	33.09
III	12344	3.94	3413.83	319	27.66
V	16046	2.81	3634.80	175	22.65

Source:officials records of srirangam municipality

FINDINGS

- ⌚ The important sources of solid waste generation is due to dense housing accommodations, more number of marriage halls, shopping establishments, flowers, vegetables and fish markets and beedi works.
- ⌚ More than 120 sanitary workers are employed for street sweeping, sewage work and solid waste diposal.
- ⌚ More than 80 lakhs of rupees are spent for solid waste management system in the study area.
- ⌚ Percapita generation of solid waste is 223.5gms which is below all India average.
- ⌚ Temple festivals also increase the generation of solid waste.

SUGGESTIONS

- ⌚ Street sweeping and sewage maintenance should be done properly.
- ⌚ Rubbish and other wastes should be done effectively.

- ⌚ Door to door collection of wastes should be done effectively.
- ⌚ Pay and use and free public toilets should be constructed at different places to cater to the needs of tourists.
- ⌚ Traffic regulation should be done efficiently to avoid traffic problem.
- ⌚ Information boards should be kept at different places
- ⌚ Temple areas and markets can be kept clean.

CONCLUSION:

For the effective collection and disposal of solid waste , there should be the effective management by municipal authorities . There must be adequate provision of drinking water, toilet and drainage facilities. People's participation is imperative for the improvement in the management of waste disposal. People should behave with social responsibility to the environment and society

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A STUDY ON THE EXTENT AND IMPACT OF UNEMPLOYMENT IN ANBIL VILLAGE IN TIRUCHIRAPPALLI

The Problem of unemployment has puzzled the policy makers overtime . This has become all the more severe & unmanageable in an age where labour displacing technologies are ruling the roost . The problem has assumed significant importance among policy makers because it is a variable influencing GDP and a root cause for poverty and inequality.

The term unemployment refers to a situation in which all those people who wish to be employed at the ruling wage rate are in fact not employed.

According to A.K.Sen, still there is no unanimity among the economists over the nature of unemployment in India. Sen has discussed about the income aspect, the production aspect and recognition aspect.

The present study concentrates on the unemployment status in Anbil village, Lalgudi Taluk. It is located 25 kilometres away from Trichy district. The village is having a total population of 3992 out of which 1515 are males and 2477 are females. The main occupation of the village is agricultural and its allied activities. Kotaimedu, Neduntheru, Keel anbil, Paruthikal come under the control of Anbil panchayat.

OBJECTIVES

The present study mainly aims

- To find the percentage of unemployment in the study area.
- To find the reasons for unemployment .
- To find out the status of unemployed persons in the study area.

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METHODOLOGY

The present study is based on both Primary data and Secondary data.

Primary data have been collected from 50 respondents through direct oral investigation.

Secondary data have been collected from District employment exchange , Trichy.

The result of the present study on the basis of above mentioned objectives are analysed in the following ways.

Education

It is one of the important factors in developing the nation . It helps in developing personality and knowledge of the respondents . It is crucial determinant of employment.

Table-1
EDUCATIONAL STATUS OF THE RESPONDENTS

S. no	EducationalQualification	No. of unemployed	Percentage
1	SSLC	5	10
2	Higher sec.	8	16
3	Diploma	10	20
4	UG	13	26
5	PG	14	28
	Total	50	100

Source : Primary data

The above table explains that Proportion of unemployment among the Diploma , UG,PG degree holders is higher than the other groups.

Table-2
REASONS FOR UNEMPLOYMENT

S.no	Reason	No. of persons	Percentage
1	Jobs not available	22	44
2	Language problem	15	30
3	Unsatisfactory Place of unemployment	13	26
4	Lack of future prospects	10	20
	Total	50	100

Source- Primary data.

In the above table a majority of the respondents have cited lack of jobs and language problem as the two major reasons for unemployment.

Table -3
STATUS OF UNEMPLOYED PERSONS IN THE STUDY AREA

S.no	Reason	No. of persons	Percentage
1	Not Respected	22	44
2	No freedom in decision making	28	56
	Total	50	100

Source: Primary data

The above table explains that Status of unemployed in the study area is poor. They are not respected well by their family members.

FINDINGS

The findings of the present study are as follows:

- § A large proportion of unemployment is found in the age group of 15-25.
- § Unemployment rate among graduates is more compared to others.

§ The unemployed persons are not respected either by their family members or by the society.

§ A majority of the unemployed believe jobs are not available due to the lack of them in their area and to work in other areas language is an obstacle.

§ A study of their emotional quotient reveals that the unemployed suffer from inferiority complex. They feel insulted and humiliated.

§ Many prefer to work in government jobs if and when they get a job. They opine that in times of recession government alone can provide safety.

SUGGESTIONS

- ❖ Respondents must equip themselves with the required professional qualifications.
- ❖ They must be equally equipped in language skills and be prepared to work anywhere.
- ❖ They must be more flexible. Instead of waiting for government jobs, they can find self-employment with suitable assistance from the government.
- ❖ Unemployment is a temporary phenomenon. They must learn to control their emotional feelings.

CONCLUSION

The increase in the number of factories and industries coupled with the I.T revolution has increased the scope of employment. There are, at present, plenty of avenues for employment. A little effort on the part of the respondents and constructive steps by the government will go miles to solve the unemployment problem.

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A STUDY ON ENROLLMENT OF STUDENTS IN ADI DRAVIDAR WELFARE AND GOVERNMENT TRIBAL RESIDENTIAL SCHOOLS IN TIRUCHIRAPALLI DISTRICT

District Primary Education Programme

The centrally-sponsored scheme of District Primary Education Programme (DPEP) was launched in 1994 as a major initiative to revitalize the primary education system and to achieve the objective of universalisation of primary education. Under the programme parameters, investment per district is limited to Rs.40 crore over a project period of 5-7 years. There is a ceiling of 33.3 per cent on civil works component and 6 per cent on management cost. The remaining amount is required to be spent on quality improvement activities.

DPEP is an externally aided project 85 per cent of the project cost is met by the Central Government and the remaining 15 per cent is shared by the concerned State Government. The Central Government share is resourced through external assistance. At present external assistance of about Rs.6,923 crore composing Rs.5,137 as credit from IDA and Rs. 1,801 crore as grant from EC/DFID/UNICEF/Netherlands has been tied-up for DPEP. Presently DPEP is in operation in nine states covering 123 districts. DPEP at its peak was operational in 273 districts in 18 states. However, with the progressive closure of the programme, it is now existing only in 123 districts.

Methodology

The present study was based on secondary data. The data was collected from various issues statistical hand book of Tamilnadu. The time period for the study is 10 years ie., 1998-99 to 2007-08. The main objectives of the study is to analyse the enrollment of students in Adi dravidar welfare and Government Tribal residential schools in Thiruchirapalli district.

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In this article an attempt has been made to analysis the enrollment of students in Adi Dravidar Welfare and Government Tribal Residential Schools in Thiruchirapalli District. In Table 1 students strength in Adi Dravidar Welfare Primary Schools during 1998-99 to 2007-08 was examined and it is evident that the total number of students strength both boys and girls in Thiruchirapalli district was 11149 students during 1998-99 and it was decreased to 8468 students during 2007-08. But in the year 2005-06 that there was a minimum number students enrolled in the Adi dravidar welfare primary schools ie., 6070 students. There were 68 number of Adi dravidar welfare primary schools located in Thiruchirapalli during 1998-99 but number of schools were declined continuously throughout the period of reference ie., there were 40 number of Adi dravidar welfare primary schools during 2007-08. In Fig.1 graphically represent the students strength in Adi dravidar welfare primary schools in Thichirapalli district during the period of reference. Both number of schools and students strength in primary schools in this district denoted as declining trend only.

Table 1 : Students Strength in Adi Dravidar Welfare Primary Schools in Thiruchirapalli District During 1998-99 to 2007-08

Year	No.of Schools	Boys	Girls	Total
1998-99	68	5704	5445	11149
1999-00	64	4894	4687	9581
2000-01	64	4894	4687	9581
2001-02	62	4404	4787	9691
2002-03	62	3780	3541	7321
2003-04	62	3780	3541	7321
2004-05	62	3780	3541	7321
2005-06	59	3009	3061	6070
2006-07	59	4240	4228	8468
2007-08	40	4420	4228	8468

Source : Performance Budget of Adi Dravidar and Tribal welfare Department.

Table 2 envisaged that Adi dravidar welfare higher schools students strength in Thiruchirapalli district during 1998-99 to 2007-08. There were nine adi dravidar welfare higher schools in Thiruchirapalli district in 1998-99 but number of Adi dravidar welfare higher schools are increasing continuously maximum upto 2006-07 ie., 12 schools but suddenly it was fall in number in the year 2007-08 that was 5 schools in the above district. The maximum number of boys enrolled in Adi dravidar welfare higher schools in this district was 7198 boys during 2005-06. Therefore, comparatively analysed boys enrollment was maximum than girls in this Adi dravidar welfare higher schools in Thiruchirapalli district over a period of time. In Fig 4 diagrammatically represent the students strength in Adi dravidar welfare higher schools in Thiruchirapalli district.

Table 2 : Students Strength in Adi Dravidar Welfare Higher Schools in Thiruchirapalli District During 1998-99 to 2007-08

Year	No.of Schools	Boys	Girls	Total
1998-99	9	5662	4722	10384
1999-00	10	5998	5327	11325
2000-01	10	5998	5327	11325
2001-02	10	5998	5327	11325
2002-03	10	5393	5409	10802
2003-04	10	5393	5409	10802
2004-05	10	5393	5409	10802
2005-06	10	7198	6470	13668
2006-07	12	5462	5138	10600
2007-08	5	5462	5132	10600

Source : Performance Budget of Adi Dravidar and Tribal welfare Department

Conclusion

Although there is a considerable increase in the spread of educational institutions in rural areas but school drop out among girls as still witnessed substantially. However participation of girls at all stages of education has been steadily decreasing ever the years (1998-99 to 2007-08). But in all stages (Primary, Middle, Higher, Higher secondary) boys are enrolled more than girls and this difference is higher towards the higher stages.

Although both girls and boys have hurdles to overcome but it is more in case of girls especially in rural areas. To achieve gender equality in education by 2015, we have to eliminate gender disparities in primary and secondary education.

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Bt COTTON CULTIVATION IN TRICHIRAPALLI REGION**Introduction**

Cotton is one of the principal commercial crops of the country. More than seventy countries cultivate cotton. Cotton production is crucial as the whole spectrum of textile sector depends on it. Further, the export performance of textile sector is also depends on the quality production of cotton. To put it another way cotton plays an important role in terms of generating direct and indirect employment as well as earning foreign exchange. Over the years, the production of cotton in India has been reduced due to the pest attack. The main pest is cotton bollworm. To control the pest incidence the farmers have applied more than recommended levels of pesticides. This has escalated the cost of cultivation and many farmers fall in to the debt trap. This has led to suicides of cotton farmers in the states like Andhra Pradesh, Maharashtra, Karnataka and Orissa. In this context it is advocated that Integrated Pest Management (IPM) is the best tool for minimizing the risk and problems in cotton cultivation. One such technological break through has been Bt cotton. The innovation in bio- technology in the form of Bt cotton controls the bollworms which has now occupied the centre stage.

Bt cotton

Bt cotton is a genetically engineered form of natural cotton. Bt cotton is produced by inserting a synthetic version of a gene from the naturally occurring soil bacterium, *Bacillus thuringiensis* (Bt) in to cotton. The main advantage of Bt cotton is that it is saved from the bollworm. This bacteria was first discovered by Japanese bacteriologists in 1901 and subsequently in 1915, a German Scientist isolated the crystal toxin in Thüringen region of Germany.

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Adoption of Bt cotton

Bt cotton was introduced in USA in 1996. The cultivation of Bt cotton widely spread to other countries due to positive reports from the growing countries in terms of economic, environmental, and social benefits. At global level the area under Bt cotton has increased from 0.8 million hectare in 1996 to 13.4 million hectares in 2006.

Table 1 Adoption of Bt cotton-Global level

Year	Bt cotton (in million hectares)
1996	0.8
1997	1.1
1998	1.4
1999	1.3
2000	1.5
2001	1.9
2002	2.4
2003	3.1
2006	13.4

Bt cotton in India

The commercial cultivation of Bt cotton in India has been approved from March 27, 2002. This is the first bio-tech crop in India. The government has approved only three hybrid varieties such as Bt MECH 162, Bt MECH 184 and Bt MECH 12. These varieties are grown under rainfed as well as irrigated lands, mostly in Andhra Pradesh, Maharashtra, Karnataka, Tamil Nadu and Gujarat. In the first year of Bt cotton, it occupied 38,038 ha in 2002-03 but it has touched 6.2 million ha in 2008.

Table 2. Bt cotton hybrids approved in 2002 in India

State	MECH- 12	MECH - 162	MECH - 184	Total (ha)
Andhra Pradesh	44	5,564	-	5,608
Gujarat	76	4,136	4,642	8,854
Madhya Pradesh	60	404	1,756	2,220
Karnataka	-	3,828	80	3,908
Maharashtra	112	9,300	5,334	14,746
Tamil Nadu	-	2,042	660	2,702
Total	292	25,274	12,472	38,038
Source : www.ikisan .com				

Current scenario in India

India is the third largest cotton producer in the world after USA and China. In 2002, the area under cultivation was 50,000 hectares, but in 2008 it has touched more than 8.96 million hectares and produced about 23.2 million bales. In 2008 about 250 hybrids were recommended for commercial cultivation. Mostly all these varieties were produced by the private seed companies. Among the major Bt cotton growing states Maharashtra was a leading state in India, its area under cultivation increased from 200 ha in 2004 to 2,880 hectares in 2007. And it was followed by other states like Andhra Pradesh , Gujarat, Madhya Pradesh, Karnataka and Tamil Nadu.

Table 3 State-wise adoption of Bt cotton in India (1000 ha)

State	2004	2005	2006	2007
Maharashtra	200	607	1,840	2,880
Andhra Pradesh	75	208	830	1,190
Gujarat	122	150	470	818

Madhya Pradesh	80	146	310	500
Northern Zone	-	60	215	592
Karnataka	18	30	85	145
Tamil Nadu	5	27	45	70
Others	-	-	5	5
Total	500	1,300	3,800	6,200

Bt cotton cultivation in Tiruchirapalli region

Table 4 Bt cotton in Tamil Nadu.

(area in ha)

DISTRICTS	2004-05	%	2005-06	%
Cuddalore	-	-	890	5.0
Villupuram	1820	14.4	-	-
Vellore	350	2.76	1110	6.2
Salem	5210	41.1	5570	31.3
Namakkal	520	4.1	430	2.42
Dharmapuri	1320	10.4	2160	12.14
Krishnagiri	-	-	420	2.36
Coimbatore	560	4.45	210	1.19
Erode	330	2.60	20	0.11
Trichy	750	5.92	330	1.85
Perambalur	1250	9.86	6220	34.97
Theni	150	1.18	40	0.22
Dindigul	250	1.97	90	0.50
Virudhunagar	20	0.15	40	0.22
Tirunelveli	60	0.47	70	0.39
Thoothukudi	80	0.63	10	0.06
Total	12670		17790	
Source : NCIPM , New Delhi.				

In Tamil Nadu, Bt cotton is cultivated mostly in the districts of Salem, Cuddlore, Villupuram, Vellore, Namakkal, Tirunelveli, Theni and Coimbatore. Though, Bt cotton has been introduced in India in 2002, the farmers started cultivating Bt cotton in Tamil Nadu in a large scale from 2004 onwards. The total area under Bt cotton has increased from 12670 ha in 2004-05 to 17790 ha in 2005-06. Apart from new districts adopting Bt cotton, it has to be noted that in the case of Perambalur district it has increased significantly (from 1250 ha to 6220 ha). Put together Perambalur and Trichy districts had around 16% of the total area under Bt cotton in 2004-05. In the year (2005-06) it has gone up to 37%. In spite of a decline in the area in the case of Trichy district.

Concluding remarks

From 2002, Genetic Engineering Approval Committee (GEAC) has approved the cultivation of Bt cotton in India. The controversy against the Bt cotton cultivation regarding the claim of it reduces pesticide costs and increases yield, are to be confirmed by conducting primary and field level studies.

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OPPORTUNITIES AND CHALLENGES TO INDIAN IT LABOUR IN THE NEW ECONOMY

INTRODUCTION:

India is a growingly important player in the world economy. India's gross domestic product (GDP) has been growing at an annual rate of over 6 percent from the early 1990s, and indeed over 8 percent in the last two years. According to some estimates, India would become the third largest economy in the world by 2035 (and china would emerge as the world's largest economy by 2041). Yet, labour in India presents a picture of great contrasts. In recent years, Indian executives have been receiving salary increases ranging between 10 and 14 percent, the highest in the Asia - Pacific region. At the same time, vast sections of the country's agricultural labourers, small peasants and urban casual labourers are passing through a phase of increasing deprivation. There have been reports of suicides by debt - ridden farmers, protests by small peasants losing their agricultural lands for the proposed special economic Zones (SEZs), and forced eviction of Mumbai's slum dwellers, vital to the city's informal economy, as part of the new modernisation plans.

THE NEW ECONOMY AND EMERGING OPPORTUNITIES FOR INDIAN LABOUR:

India's successes in the new economy owe in great measure to the large supply of highly skilled professionals. Over the decades of planned development, India built a fairly extensive system of higher education, though of varying quality. India's English speaking population numbers 30-50 million, which is almost as large as the population of a medium sized country. Wages of skilled professionals are low in India compared to developed countries. India is today a favoured destination for MNCs to off shore service work. The early wave of the off shoring boom to India began in the software industry.

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EMPLOYMENT IN THE IT SECTOR

What impact does the new economy have on job creation in India? According to estimates by NASSCOM, India's IT and ITES industries have created an additional 3 million indirect job opportunities. Indirect jobs are created as IT-ITES industries demand a range of services including telecom. Power, construction, facility management, IT, transportation, and catering. Jobs are also generated through the consumption expenditures of IT sector employees on food, clothing, utilities, recreation, health and other services.

THE NEW ECONOMY AND INDIAN LABOUR. HOW REAL ARE THE OPPORTUNITIES?

The ongoing economic changes have, without doubt, created new employment opportunities and improved living conditions for sections of labourers in India as well as in China and other developing countries. There are, however, concerns on the durability of these opportunities and benefits to labour. It appears that the new economic changes have led to any strengthening of the position of labour vis-a-vis capital.

OFF SHORING AND GAINS FOR INDIAN WORKERS. HOW REAL AND FOR HOW LONG?

For workers in India and other developing countries who benefit from off shoring, the prospects are not entirely bright earlier. Many reports suggest that workers in China's export-oriented manufacturing firms survive under extremely poor conditions, only to escape the poverty and harshness of life in the villages from which they migrate in large numbers.

India's leading position in IT and ITES industries is threatened to a great degree by larger salary increases, high labour turnover, and also by shortage of workers with the required skill levels and experience.

CONCLUSION

The new globalising economy offers great opportunities for Indian labour. Exports of software services from India labour. Exports of 'software services from India surged

from the 1990s. There are encouraging reports about growing Indian expertise and entrepreneurship in technology - intensive industries, pharmaceuticals. For example, MNCs have been offshoring a range of service sector jobs to India in recent years. It is clear that the new economy must create job opportunities for the vast number of unemployed and underemployed in India's rural and urban areas; otherwise, it will only be widening the existing inequalities in the country.

The challenges are many what is most striking is the poor state of school education in India, which stands in contrast to the high standards achieved by a few institutes of higher learning in the country. India has still not attained the goal of providing universal primary education.

India has a vast army of skilled labourers. However, this in itself is not enough to translate into a leadership role for the country in the new economy. Globally, the major beneficiaries of the new economic change, particularly outsourcing are not labourers in developing of developed countries, but MNCs whose profit are soaring as never before.

In sum, the new economy promises expanding opportunities for educated sections of Indian labour. However, converting these early signals of progress into widespread and participatory development in the country requires, first, strong interventionist policies by the Indian government, most importantly, in education and social development. Secondly initiatives are required at the global level, in partnership with other developing countries, to combat the unfair rules of international trade.

PROBLEMS OF RURAL HOUSEHOLD ENERGY CONSUMPTION IN TAMILNADU

Rural energy consumption can be broadly classified into energy for domestic use, for agricultural use and for use in small and medium enterprises. In India, the rural household sector is the largest energy consuming sector accounting for 75 per cent of the total energy consumed (Ibrahim Hafeezur Rehman, 2002). The rural household sector uses commercial energy (electricity, kerosene and LPG) and non-commercial energy (fire wood, dung cake, and crop residues). Household energy is used for cooking, lighting and space heating. Cooking is the largest of the energy consuming end uses. It accounts for nearly 90 per cent of household energy (Ibrahim Hafeezur Rehman, 2002). Lighting and space heating consume the rest.

In rural areas, various types of fuels are used for cooking. Rural people use wood (71.69 per cent), cow dung (19.6 per cent), LPG (1.23 per cent), kerosene (1.34 per cent), and others (6.14 per cent) (Pawankumar, 2001). Women faced the real human face of the rural energy crisis. With women responsible for cooking and fuel collection, they are the most affected by the rural energy problem. The access of women to cooking energy resources is determined by their socio-economic status and their geographical location. As a consequence of this, women are compelled to use inferior fuels. The use of inferior fuels along with inefficient chulhas and extremely poor ventilation of rural homes, produce a deadly disease trap for women. It was also observed that the scarcity of cooking fuel forces women to reduce the energy used for cooking, which results in nutrient losses. An enormous variety of household energy consumption patterns are to be found in the rural areas of developing counties. Remedies for rural energy problems have to be based on a good understanding of dramatically varying local conditions and the key variables that affect the levels of demand and the types of energy sources used.

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The present paper has been based on Multi-Stage Random Sampling technique. In the first stage the study area, Thiruvavarur district has been purposively selected since it is one of the rural oriented districts of Tamilnadu. In the second stage, to cover all the regions of the district, four villages Panangudi from the Northern Region, Valkai from the Western Region, Naduvachery from the Eastern Region and Melavasal from the Southern Region of the district have been selected as the representative revenue villages. In the third stage 135 sample respondents has been selected from the sample villages.

The present study has been based on primary data. The data were collected from the selected respondents of the sample villages through a well structured interview schedule. The schedule consists of socio-economic details and various problems faced during the consumption of energy.

Table 1. Internal Problems faced during the Consumption of Energy.

S.No	Sources of Energy Problems	Fire wood	Agricultural residues	Kerosene	L.P.G	Electricity	Bran
1	Long time for cooking	93 (71.81)	33 (50.78)	Nil	Nil	Nil	Nil
2	Eye irritation	87 (66.79)	52 (80.06)	Nil	Nil	Nil	57 (79.57)
3	Possibility of firing	45(34.36)	Nil	Nil	Nil	Nil	Nil
4	Problem of Child bearing	64 (49.42)	Nil	Nil	Nil	Nil	Nil
5	Damage in food	Nil	Nil	37 (28.57)	Nil	Nil	Nil
6	Fearing of using LPG	Nil	Nil	Nil	4 (8.23)	Nil	Nil
7	Risk of hard item preparation	Nil	Nil	Nil	31 (72.94)	Nil	Nil
8	Danger in handling	Nil	Nil	Nil	Nil	48 (35.18)	55 (76.76)
9	Leakage problem	Nil	Nil	Nil	Nil	59 (43.33)	Nil

Source: Primary Data.

Table 1 depicts for the internal-problems faced during the consumption of energy while using various types of energy sources. Households were faced the problem of long time for cooking at some stage in the consumption of firewood 93(71.81) and agricultural residues 33(50.78) respectively. This problem utmost arises from the consumption of firewood 71.81 per cent. Households faced many problems like eye irritation after the consumption of firewood 87(66.79), agricultural residues 52(80.06) and bran 57(79.57). The eye irritation problem was largely occurred in the consumption of agricultural residues 80.06 per cent. Because the agricultural residues discharged more smoke at the time of consumption. During the consumption of firewood 64(48.42) faced the problems in the child bearing. Here 37(28.57) households suffered from the problem of damaging food by using kerosene. Households not used LPG 4(8.23), due to the ignorance and lack of awareness in handling the LPG. Risk in hard item preparation 31(72.94) felt as the cost of LPG was high when compared to other sources.

Major Findings

The problems faced by the respondents during the consumption of energy are classified in to two categories, viz, internal problems and External problems. The internal problems include the long time for cooking, eye irritation, possibility of firing, problems of child bearing, damage in food, fear of using LPG, risk of hard item preparation, danger in handling and leakage problem.

During the use of fire wood respondents have faced various internal problems, the problem of long time for cooking was faced by 71.81% respondents and the problem of possibility of firing was faced by only 34.36% of the respondents.

The LPG consumed households have faced some internal problems 72.94 % of the respondents have faced the risk of hard item preparation and the fear of using LPG is found among 8.23% respondents only. Respondents have internally faced the problems, like danger in handling and leakage problems by the use of electricity.

Households were faced some External problems, like condensed smoke, lake of availability in the rainy seasons, environmental pollution, corrosion of utensils, limited supply of PDSs, high price in open market, problems of continuous supply, price fluctuations frequent power cut etc.

The external problems faced in the kerosene consumption revealed that the limited supply of PDSs was observed by 98.84% and the corrosion of utensils was observed by only 19.69%. Since the public distribution system supplies only limited quantity of kerosene at the subsidized rate. The problem of fuel supply is registered by the 91.76% of the LPG user and the fluctuation in price registered to 78.82% of the respondents, because of the government policy, scarcity of petroleum products and limited imports of petroleum products from abroad, etc. The use of dung cake makes some external problems. The problem of condensed smoke was felt by 90.99%.

The frequent power cut of electricity is registered by 82.22% and problem in the lack of availability during the rainy season it was registered to 79.25%, due the insufficient production of power, etc.

Suggestions

Based on the findings of this study, some possible suggestions have been put-forth with the view to sustain the energy supply and to solve the problems in the fuel consumption and its availability.

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ECONOMICS OF NON – ECONOMIC INCENTIVES IN DALMIA CEMENT BHARAT LIMITED

Introduction

In India the beginning of modern industrialisation was made after a long time lag. Pioneers like J.R.D Tata made many experiments to uplift the workers. During this time custom was replaced by contract and the contract was governed by wages. In the beginning wages was the only regard for the work undertaken. Problem of fatigue, absenteeism and turnover was never given any consideration. Such type of labour was called jail labour. It never bothers about many problems.

Any increase in the wages of industrial labour does not raise their efficiency because of their low standard of living and their unwillingness or inability to spend their wages in directions that would promote their physical and mental well being. Hence their working conditions can be improved by affording them facilities for recreation and healthful enjoyment. Considerable reduction in absenteeism can also be possible by providing welfare work.

Welfare work of the right kind is bound to exercise a great influence in improving industrial relations and in promoting good will and harmony between the employer and the employee. This can be possible by means of works committees and welfare committees meeting at regular intervals. This will go a long way in removing the psychological factors that cause discontent and unrest. This force necessitates the organisation of elaborate welfare schemes.

The study concentrates a particular cement factory namely Dalmia cement (Bharat) Limited. It focusses its attention only on the statutory and non – statutory welfare amenities provided by the management of Dalmia cement factory to its employees.

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Statutory welfare Amenities.

Canteen :

The factory runs an excellent canteen. The price of the articles in the canteen is always less than the price outside.

Sanitation :

In Dalmia Cement factory bathing and toilet facilities are conveniently situated and there is accessibility for all workers at all times.

First aid appliances :

Factory provides first aid boxes in Various sections of the factory.

Employees Provident Fund :

Workers are governed by the employees provident fund scheme .

Gratuity :

Factory has a gratuity scheme according to which employees who have put in more than 15 years of service are entitled to gratuity at $\frac{3}{4}$ months basic salary for each completed year of service or as per the payment of Gratuity Act which ever is higher.

Holidays :

Festivals and National holidays with full pay as per Tamilnadu Industrial Establishment (National and Festival) holidays Act 1958 is given to the employees.

Spittoons:

The factory provides spittoons of all required spots inside the factory.

Family Pension Scheme :

Factory provides family pension and assurance benefits to the employees.

Drinking water :

Continuous drinking water supply wherever necessary at convenient places is provided by the factory.

NON STATUTORY WELFARE AMENITIES

Education :

Scholarship :

Worker's Education :

Recreation :
Housing :
Co-operative Milk Society :
College bus :
Hospital :
Co – operative Stores :
Co-operative Bank

Children's Park :
Community centre :
Long service Awards :
Allowances :
Labour Welfare Centre :
Subsidy to temple Committee :
Conclusion :

As the Lord Beverage Scheme of England the factory takes care of the worker from womb to tomb. Since it has analysed all minute details, like temple to God, a store to the consumer and a bank to the Saver.

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USE . . . UTILISE ?**INTRODUCTION**

The health of a nation is an essential component of development, vital to the nation's economic growth and internal stability. Assuring a minimal level of health care to the population is a critical constituent of the development process.

IMPORTANCE OF SANITATION

Proper sanitation is important to stay away from diseases at both personal and community levels. A number of diseases in India occur due to lack of proper sanitary facilities, especially among poor and rural people. By providing proper sanitary facilities to people, these diseases can be controlled and a number of deaths can be avoided.

In India alone there is an estimated 100,000 tons of human waste left each day in agricultural fields, public waterways used for drinking and bathing and along roads because of poor access to sanitation. Unfortunately, this number is expected to increase with further population growth.

The day everyone of us gets a toilet to use, I shall know that our country has reached the pinnacle of progress.

- Pandit Jawaharlal Nehru

To protect the rural health and environment. Some of the NGOs are doing wonderful services.

SCOPE – An NGO has introduced first Ecosan community compost toilet in the country at Saliyar Street of Seventhilingapuram Panchayat, Musiri Block in Tiruchirappalli District.

ECOLOGICAL SANITATION

Ecological sanitation offers a new philosophy of dealing with what is presently regarded as waste and waste water. Ecosan is based on the systematic implementation

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of reuse and recycling of nutrients and water as a hygienically safe, closed loop and holistic alternative to conventional sanitation solutions.

Ecosan systems enable the recovery of nutrients from human faeces and urine for the benefit of agriculture, thus helping to preserve soil fertility, assure food security for future generations, minimize water pollution and recover bioenergy. They ensure that water is used economically and is recycled in a safe way to the greater possible extent for purposes such as irrigation (or) ground water recharge.

DESIGN INFORMATION AND TECHNICAL SPECIFICATIONS

- ♥ The ECCT was built with bricks.
- ♥ The size of the compost chamber is 6 x 3 x 5.6 feet. The walls and floors were laid with glazed ceramics tiles for easy maintenance.
- ♥ FRP pans used in the toilet.
- ♥ No Water taps inside the toilet.
- ♥ Common water tap with small bucket (4 litres) and a mug.
- ♥ Ash stored in a bucket used for sprinkling for in drop hole.

TECHNOLOGIES APPLIED

- ♥ ECOSAN Technology selected due to the features of site, high water table area.
- ♥ Three-in-onepan used.
- ♥ Feaces collected and dehydrated in the chamber.
- ♥ Urine collected in a tank outside the toilet.
- ♥ Wash water drained into a filter bed.
- ♥ Two blocks, each with 7 cubicles, one for men another for women and separate Mounted ECOSAN toilet for Handicapped and senior citizens.
- ♥ Compost chambers in the ground floor and toilets in the first floor.

USERS

- ♥ Public use the toilet.
- ♥ Farmers reuse sanitized products compost and urine.
- ♥ Research scientist use for various studies.

RESEARCH

Urine used for Banana plants in the campus and for research purposes by Tamilnadu Agricultural University, Coimbatore, Anna Univeristy, Chennai and National Research Centre for Banana, Trichy.

IMPACT

- ▶ Residents get new facility – ECOSAN toilet.
- ▶ Open defecation reduced.
- ▶ Health and Hygiene has improved in the area.
- ▶ Banana Growth in ECCT using urine is very good.
- ▶ TNAU conducted study of urine for one paddy crop (4 months).
- ▶ ECCT in place of conventional community toilets saves the panchayat by way of O&M cost Rs.50,000 per year.
- ▶ Panchayat built one ECCT from its own funds.
- ▶ A stream of visitors from India and abroad, ECOSAN experts including UNICEF exchange team studied the ECCT.

A CASE STUDY ON SMALL SCALE RICE MILL UNITS IN TIRUCHIRAPPALLI TALUK, TIRUCHIRAPPALLI DISTRICT

Introduction

The growth of SSIs holds the key role to resolve the problems of poverty and unemployment. That is why every country gives importance to the development of different types of SSIs. The growth of SSIs is a precondition for the economic development of any nation, particularly the developing ones like India. In India, SSIs occupy 123 lakh units; contribute 40 per cent of industrial production; 35 per cent of its exports; and provide employment to about 295 lakh persons (**SIDCO Annual Report, 2008**). The strength of the sector lies in its ability to create jobs at low cost in less developed regions and at a rapid pace.

SSIs include the agricultural based industries and industrial based industries. The agriculture based small scale industries are rice mill, sugarcane, oil seeds and so on. The modern SSIs now produce more than 8000 products. It has emerged as a major supplier of mass consumption items such as leather products, steel metal goods, bicycles and their components, paints and varnishes and so on. Among the sophisticated items mention may be made of television sets, electronic control systems, various engineering products, particularly ancillary and large industries [**Ram K. Vepa, (1983), Ganesmurthy and S. Manikkam, (2002)**]. The traditional SSIs are highly labour intensive while the modern SSIs use of highly sophisticate machinery and equipment which provide more employment opportunity to skilled and qualified workers.

Statement of the study

Tamil Nadu is one of the industrially advanced states. The share of secondary sector in GDP was 29.6 per cent in 2005-06, its growth is being driven by registered and

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unregistered manufacturing units, which have achieved a growth of 9.3 per cent between 1999-2000 and 2005-06. After the advent of globalization and liberalization policies, Tamil Nadu has emerged as one of the front runners by attracting a large number of investment proposals is roughly about US \$ 58.3 billion in the year 2007 (Vetrivel K and S. Iyyampillai, 2009). Now, Tamil Nadu is the third largest economy in India but it stands second position in number of industrial units, number of workers employed in factories and retaining the third position in terms of industrial output (Tamil Nadu Profile, 2003). In 2001, the state of Tamil Nadu was divided into 29 districts. Chennai, Coimbatore, Tiruchirappalli, Kanchipuram, Salem, Thiruvallur, Vellore, and Thoothukudi, are the main districts of industrial and commercial activities.

In these districts, Tiruchirappalli district is an industrially and economically well developed district in Tamil Nadu state. The easy availability of financial assistance, incentives and subsidies influenced many entrepreneurs to start SSIs in this district. Tiruchirappalli district is an advanced taluk in the district. Paddy processing is one of the major industrial activities in this taluk, for the taluk is surrounded by paddy field and also Thanjavur district, the Rice-Bowl of Tamil Nadu, is nearer to this district. Now, the rice mill units have been given more employment opportunity to skilled and unskilled workers. The small scale rice mill units are an important segment of the Indian economy. In this view, the present paper has focuses on the small scale rice mill units in Tiruchirappalli taluk, Tiruchirappalli district.

Objective of the study

- ⌚ To analyse the performance of the small scale rice mill units in Tiruchirappalli taluk.

Methodology

Tiruchirappalli is one of the industrially advance districts in Tamil Nadu state. this district consists of eight taluks. Namely, Srirangam, Lalgudi, Thottaiyam, Manachanallur, Manapparai, Musiri, Thuraiyur and Tiruchirappalli taluk. Tiruchirappalli taluk, being an industrially advanced taluk (Table -1) in Tiruchirappalli district, has been chosen for empirical context. The present paper availed data from the Inspector of Factories. Small

scale rice mill units are registered in this organization before 1990 and till now functioning units are only ten which are taken into consideration for the present study. Of which eight units are having pucca record with sufficient data and information pertaining to the present study. For remaining two units record and informations are not available in this office. Therefore present study exclusively uses eight live units' data to have meaningful analysis. The present study aims at understanding the historical adjustment process and problem of the SSIs in Tiruchirappalli taluk so that the dynamics of entrepreneurship development could be traced. The study has also used secondary data collected from Inspector of Factory, District Statistical Office, published materials like Journals, News Papers, Periodicals, Books etc.

Findings of the study

Since industrialization was given due attention in India only after the second five year plan, the number of industries also grew faster after 1960

During this period, there were changes in ownership also. These changes also indicate the difficulty of running an enterprise for longer time. As on now, only two entrepreneurs continue to be there. In the case of remaining six units, four units are run by the wards for more than 20 years. Four units are run by the earlier partners of the unit since the main entrepreneur is diseased and no one from the entrepreneurs' family came forward to take up the unit.

Paddy processing is one of the major industrial activities in this taluk, for the taluk is surrounded by paddy field and also Thanjavur district, the Rice-Bowl of Tamil Nadu, is nearer to this district. There are eight units dealing with this function. All these eight units were processing and milling paddy and involved in trading rice. However, now, only six units continue to do all these functions. Two units have closed the milling activity and they do only trading of rice. These two units have closed down milling activities due to the cut in transport services to these two mills. In front of these mills, a huge over-bridge was constructed in 1997 which obstructed the transport facility. As a result, these mills could not bring in larger quantum of paddy for milling. Hence the milling was stopped.

Finance is the major requirement for industrial units. With increased modernization, machines replace the labourers. Requirements of money as well as the number of sources of supply of funds have also increased in the recent years.

Workers – totally, 140 persons got employment opportunities through these units. Both the skilled and unskilled workers, the skilled workers here include all those workers with some formal and specific qualifications while the others are called unskilled workers. These trends clearly indicate the process of change in the society from “informal” to “formal”.

Sources of **raw materials** and patterns of the uses of raw materials have changed over the period. Dependence for raw materials on local market is shrinking while on outside market is expanding. Rice mills buy paddy from other districts and states. At earlier stage, the rice mill's husk and bran were simply thrown out and dumped generally in public place. However, now they are used up as a source of fuel for heating purposes. All the units depend on only domestic market and the rice mill unit's production and sales has declined over the years due to the stiff competition from other states.

The per cent of **unsold stock** to total production at a particular point of time depends on the nature of the product, production process, type (seasonal and perennial) of demand, availability of space, money and so on. In this study, over the period, the absolute quantity and percentage of stock in rice mill units have increased.

Administrative **expenses** include taxes - excise duty, income tax, sales tax and purchase tax - deposit paid for electricity, rent and lease amount.

The **entrepreneurship development** in the state has been very much stimulated and promoted by various Industrial Promotional Agencies established by the support of both Central and State governments.

Difficulties - the single most important problem earlier was getting finance; and competition was not very acute. However, now the competition among the similar units and price-war are the major problems. This was true for all the eight study units. Industry

specific problems are few. The rice mills, penetration of rice traders from other states has worsened the competition.

Conclusion

All the relevant details regarding the history, functioning and future prospects of the study units have been analysed to understand and explain the actual situation of industrial and entrepreneurial development in Tiruchirappalli taluk. It is found that the overall policy and physical environment has been utilized by the entrepreneurs to maximize the benefits. However, it is noticed that due to various reasons some units could flourish while others could not. Hence, it is ultimately concluded from the analysis that, in spite of all the external factors, the individual factors do play more important role in the expansion of the industrial activities. Hence, the IPAs should design, besides the existing policies, innovative programmes to boost the individual psychic capacities and capabilities and play a facilitating role rather than being a provider of benefits.

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A STUDY ON THE CROPPING PATTERN IN MANIKANDAM BLOCK, TIRUCHIRAPPALLI DISTRICT

Introduction

Agriculture is still the base in all the development strategy, especially in developing Countries of the world like India. At the bottom of the development system agriculture together with technology from a complex network which needs to be given prime consideration in rural development. Agriculture economy of India presents a dual picture of property and plenty on one side, and poverty and misery on the other. This sharp Contrast makes generalization difficult and dangerous. The phenomenal growth of crop output during the last two decades has been the most outstanding achievement of Indian agriculture. The new agricultural technology and pattern of growth have changed the face of Indian agriculture from a "begging bowl" to a "bread basket" (Sankaran, 1992). Cropping pattern we mean the proportion of area under different crops at a point of time. Changes in this distribution over a period of time and factors determining this change in distribution of cropping Patten in India is determined mainly by natural factors like rainfall, climate and soil Condition.

Statement of the Study

Tiruchirappalli district is an economically well developed district in Tamil Nadu state. But this district, agriculture activities are very slow compared to that of Tanjore district. The agriculture performance has reduced over the years, due to the dominance of real estate business, government policies related to infrastructure development and shift of the labour from agriculture sector to industrial sector. The industrial sector given better salary compared with the agriculture sector. The climatic conditions are not favour to the agriculture in recent years. Therefore, the cropping pattern is change in this district.

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This district consist 32 blocks and eight taluks. In these block, the Manikandam block is more favour on agriculture activities. This paper focuses on the how to change the agriculture cropping pattern in Manikandam block, Tiruchirappalli district.

Objective of the Study

§ To analyse the factors influencing the cropping pattern in Manikandam Block.

Methodology

Tiruchirapalli is a centrally located district in the state of Tamil Nadu. This district consists of eight taluks and 32. These taluks, the Manikandam is the one fairly small out backward block in the district. The objective of the study is to evaluative the cropping pattern of Manikandam Union. There are many villages contain under the Manikandam block. For the sake of simplicities and clarity only one village has been selected. The Manikandam village has been selected for a study under purposive sampling with the help of voters list a list of all farmers in village is prepared. From the list 50 farm household are selected. The method of selecting farmers is based on simple random sampling. To collect primary data structured questionnaire were prepared end personal interview method has been used. This study has also made use of secondary data to collect information with regard to structure of land and acre of lands under different crops.

Findings of the study

An important feature of the cropping pattern in the block is that paddy is cultivated by all the farmers. Generally for domestic consumption and partly for marketable surplus and income which among the crops get priority in this region is difficult to establish. There may not be and definite priorities among farmers probably priorities are determined by weather, irrigation, price, profit and similar variable.

In Manikandam Block, paddy cultivation occupies the largest area, followed by banana and blackgram.

The colleted data in Manikandam Block has been analysed this study 50 samples of the farmers are collected in this area. In the sample area total cultivated and the distribution of area for the cultivation of various food crops and non food crops have been

taken into consideration. Most of the farmers are cultivated food crops only paddy is the major crop cultivated in the sample area. In this area, there are differential sizes among the farmers. In Manikandam block, most of the farmers are medium farmers and also most of the farmers are uneducated.

It is observed that the total income has spent in many ways such as food, cloth, fuel, education, medical and so on. The large amount of money has been allotted to food expenses. Besides, totally 38 numbers of families are under debt. But 17 numbers of families have debt only below 50,000. Most of the people in the sample area are not willing to have debt. But the vicious circle of poverty forces farmer to borrow for consumption as well as for cultivation.

The wet land is necessary for the better production. Nearly 68 per cent of land is dry in nature. It leads to poor crop rotation. Among the sample farmers most of them are having dry land which has the poor irrigation facility and which also have the poor productive capacity of food crops. Through introducing better irrigation facility, the farmers can make use of these lands for to cultivate different kinds of crops under different period of time.

It may Seen from the survey that majority of household sell their products only to wholesales. Even though, they have the Co-operative marketing facility which is only for farmers. They prefer wholesaler, public markets etc. In large farmers of farmalities, they make use of their produced products to their family members which will never go to the market.

Suggestions

1. The dry land can be made use off through new technologies.
2. The government should provide loan to produce vegetable crops. This gives short period earning to the farmers.
3. The Government should create awareness among the farmers about the governmental credit facilities.

4. Even though the agriculture is a side business too few the productions should be increased through giving more importance to agriculture.
5. The crop rotation is can be done if the farmers have assured irrigation facilities.

Conclusion

The study attempt to high light the land use pattern and cropping pattern of Manikandam area is largely of intensive subsistence type where paddy is the single important crop and clearly dominates the entire economy of the region. Nowadays, the agriculture crop patterns more change in this area due to dominance of real estate business, shortage of irrigation water and climate change. So, the central and state government must be provided the irrigation water facilities to agriculture activities. Besides, the government should encourage building the houses an apartment model this result, the real estate business activities may be reduced and the agriculture performance very well in future.

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INPUT USE PATTERN AND RICE PRODUCTION IN TIRUCHIRAPALLI DISTRICT

Providing adequate supplies of food and improving the health for rapidly increasing population are the two greatest challenges today under the constraints of climate change and environment degradation. Rice is the most important food crops of nation which provides 43 per cent of calorie requirement for more than 70 per cent of Indians. The country's rice area and production accounting for 27.5 and 14.5 per cent of the global shares. During 1999-2000, about 22 per cent of world rice production came from India (FAO, 2003) and it has the largest area under rice but second largest producer next to China.

In Tamil Nadu, rice is cultivated in 28 districts under different agro-ecological conditions to the tune of 20.5 lakh hectares (lha) and producing 52 lakh tons (lt) during 2005-06. Recent studies reported that the rice productivity starts decline in some region due to decline in soil fertility, scarcity in labour (for timely operation), water (at critical stage of crop) and incomplete technology adoption. It was reported that the increasing trend of paddy productivity gets stagnant or declined in Cauvery Delta Zone (Govindarajan, *et al.*, 2004). Though, Tamil Nadu stand one among the high paddy productivity state in India, it was largely noticed the huge variation between districts (Govindarajan *et al.*, 2004). Tiruchirapalli district constitute 3.8 per cent of state area and producing 4.36 lt of paddy (4.54 per cent). The average productivity was 2.96 t/ha in terms of rice during 2005-06.

Further increase in production is possible only through improvement in productivity. Productivity can be increased through one or combination of its determinants- the technology, the quality and types of resources used and its efficiency with which the resources are used. The present input use pattern and it efficiency input use would help to formulate policy measures to increase the productivity and production in Tiruchy rice production system. In this context, the present study has attempted to explore the present input use pattern and estimate the input use elasticities paddy production system in two different periods (1996-98 and 2005-07).

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Data and methodology

The study has used both primary and secondary data sources. The primary data were collected from the data bank of the Scheme on Estimation of Cost of Cultivation of Principal Crops (CCPC). In CCPC, the farm samples were selected based on the multi-stage random sampling and clustering sampling technique at ultimate farm selection. The present study has used the primary data set available in the scheme for two periods in consecutively for three years (1996-98 and 2005-07), each covering each 10 farmers from two villages selected from Lalgudi and Pullampadi taluks of Tiruchirapalli district. The secondary data has been collected from the various issues of Season and Crop Report published by Directorate of Economics and Statistics, Tamil Nadu.

The input use pattern between the periods was analyzed using descriptive statistics with percentage analysis. The optimal input use level and input elasticities were estimated using the Cobb-Douglas production function approach.

Results and Discussion

Performance of paddy production in Trichy and Tamil Nadu

The production pattern of crops reflects the overall performance of the crops under study that could be studied by its trend in area, production and productivity. In order to study the production performance of the crops, the area, production and productivity of paddy during last three decades were analyzed and the results are presented in Table 1. along with their annual compound growth rates (ACGR).

Table 1. Temporal Variation in Area, Production and Productivity of rice in Tiruchirapalli and Tamil Nadu

Decadal	Area I ha				Production It				Rice Yield t/ha			
	80-89	90-99	00-06	All	80-89	90-99	00-06	All	80-89	90-99	00-06	All
Tiruchirapalli												
Average	1.32	1.26	0.88	1.20	3.30	4.34	3.27	3.69	2.64	3.46	3.62	3.18
Minimum	1.01	1.00	0.62	0.62	2.88	3.73	1.89	1.89	1.92	3.01	3.07	1.92
Maximum	1.71	1.43	0.00	1.71	4.39	5.17	0.00	5.17	4.36	4.38	0.04	4.38
CV%	19.72	11.75	25.85	22.77	16.28	11.10	32.36	22.39	34.70	10.86	9.97	23.79
aCGR	-6.3	3.1	-12.5	-2.1	2.9	1.1	-16.4	0.2	9.9	-2	-4.8	2.3
Tamil Nadu												
Average	22.45	21.25	18.64	21.11	53.33	66.30	55.99	58.93	2.42	3.12	2.93	2.81
Minimum	19.30	19.00	15.95	15.95	45.34	59.96	39.54	39.54	1.96	2.81	2.46	1.96
Maximum	26.54	22.40	21.73	26.54	67.30	75.22	76.80	76.80	3.50	3.58	0.04	3.58
CV%	10.45	5.48	12.58	11.36	14.08	7.05	27.72	18.01	23.70	6.94	15.97	18.88
aCGR	-2.9	1.4	-5.5	-1	3.2	0.7	-12.6	0.5	6.5	-0.7	-7.8	1.4

Area in lakh hectares, Production in lakh tonnes, Yield in tones per ha. Source: Estimated from secondary data collected from the various issues of Season and crop report, Directorate of Economics and Statistics, Tamil Nadu

It could be inferred from the table that the performance of rice in Tiruchi district and Tamil Nadu does not showed welcome improvement neither in area, production nor in productivity during last decade. The ACGR for area, production and yield of rice showed negative trends (-12.5, -16.4, and -4.8 per cent, respectively) particularly during 2000-06. The same negative trend was also noticed in the state (-5.5, -12.6 and -7.8 per cent, respectively for area, production and yield), however the magnitude was comparatively less in state area and production but more in yield. This may be due to consecutive occurrence of drought during 2001-01 to 2003-04 (Charts 1 and 2). Though the negative trend in rice area in both Trichy and the state during last three decades, it was more pronounce in Trichy (-2.1 compared to -1 per cent for Tamil Nadu) than Tamil Nadu. This caused negative impact on rice production though it had 2.3 per cent ACGR in productivity compared to 1.4 per cent of productivity growth for Tamil Nadu during last three decades. It is also interesting to note that, the average rice productivity in Trichy was 3.2 t/ha during last 2000-06, which was increased from 2.64 t/ha during 1980-89, which showed the remarkable increase (32% increased over base period) in Trichy compared to Tamil Nadu. The productivity improvement in Tamil Nadu was only 16 per cent (from 2.42 to 2.81 t/ha in term of rice) between last three decades.

The above analysis revealed that the declining trend in both area and productivity, of rice cautioned the planners to formulate optimal and timely application of inputs for sustaining the paddy production. Identification of the optimal input use level is essential to improve the productivity further. The annual compound growth rate of paddy production and productivity had already turned negative. Thus, the adoption of modern machineries like tractor and power tiller use for ploughing, power thresher and combined harvester use for paddy harvesting and other input use such as human labour, animal labour, use of FYM, N, P, and K rice production systems were studied and the results are discussed in the following section.

Table 2. Input use pattern for rice in Tiruchirapalli*

Inputs	1996-98			2005-08			% Change		
	Kulithalai	Lalgudi	All	Kulithalai	Lalgudi	All	Kulithalai	Lalgudi	All
Human Labour	961	1102	1044	919	1047	960	-4.37	-4.99	-7.99
Animal labour	18	77	52	7	10	8	-60.49	-87.60	-85.08
Machine labour	5	3	4	7	10	8	37.47	248.95	110.61
Seed	125	135	131	89	102	93	-28.74	-24.45	-28.73
FYM	8852	2684	5443	3875	5530	4674	-56.22	106.03	-14.13
Nitrogen	80	79	79	105	108	106	31.16	35.97	32.99
Phosphorus	28	37	33	44	37	42	58.52	1.17	26.76
Potash	50	63	58	117	94	110	132.70	49.04	89.28
Total Fertilizer	158	179	170	266	239	257	68.32	33.45	50.91
Yield (Paddy)	32	22	26	30	25	28	-6.57	9.54	7.03

* Estimated from the sample data

The marginal increase in yield between two different periods need to decomposed in to different yield category (low < 30 q/ha; medium 30-40 q/ha and >40 q/ha). The frequency distribution of different rice yield category was estimated and the results are presented in Table 3. The results revealed that in Kulithalai the percentage of farmer under low yield category (<30 q/ha) was increased from 13.7 per cent to 39.5 per cent between two periods which was compensated some extent by increase in high yield category farmers to 20.9 per cent in 2005-08 from 4 per cent.

Table 3. Rice Yield level in Trichy district

Taluk	Rice Yield qtl/ha	Period 1996-98			2005-08		
		Yield	Farms	%	Yield	Farms	%
Kulithalai	<30	25.81	7	13.7	22.69	17	39.5
	30-40	33.62	12	23.5	36.18	3	7.0
	>40	42.46	2	3.9	41.00	9	20.9
	All	31.86	21	41.2	29.77	29	67.4
Lalgudi	<30	21.69	29	56.9	21.91	11	25.6
	30-40	34.15	1	2.0	32.68	3	7.0
	All	22.11	30	58.8	24.22	14	32.6
Trichy	<30	22.49	36	70.6	22.38	28	65.1
	30-40	33.66	13	25.5	34.43	6	14.0
	>40	42.46	2	3.9	41.00	9	20.9
	All	26.12	51	100.0	27.96	43	100.0

Note: District average yield was 32.95 and 29.75 quintal/ha in term of rice (Season and crop report)

Source: Estimated from the sample farms

Production function analysis

In order to capture the yield response of rice to the different inputs, the production function analysis was carried out. Following the convention and the straightforward way in which the elasticities of production could be obtained, the Cobb- Douglas production has been used in the present study. Production function analysis result are presented in the Table 4. Results revealed that except potash in first period and Farm Yard Manure in second period non-of the coefficients were found to be significant in elasticity. However, the sign and magnitude of coefficient revealed that animal labour and phosphorus where negative response to the yield of rice in first period. Further increase in human labour and potash increase the rice yield in period one. This sub optimal input use level has been changed to potash and Farm Yard Manure had been coefficient and every one per cent increase in use of Farm Yard Manure and phosphorus would increase the yield to more than 10 per cent indicated the positive response to these inputs, currently. The taluk dummy had positive coefficient at significant level indicated the regional yield difference between the taluk.

Table 4. Results of Cobb-Douglas production function analysis for rice

Variables	1996-98		2005-08	
	coefficient	t value	coefficient	t value
Constant	2.822*	2.443	3.14**	1.947
Human Labour	0.067	0.399	-0.059	-0.206
Animal labour	-0.017	-0.996	-0.017	-1.331
Machine labour	-0.015	-0.19	-0.030	-0.375
FYM	0.018	0.453	0.114**	2.399
Phosphorus	-0.029	-0.325	0.147	1.397
Potash	0.048**	1.964	-0.142	-1.187
Taluk Dummy	0.326***	2.514	0.331***	2.835
R ²	0.509		0.613	
Adjusted R ²	0.394		0.477	
F Value	4.43		4.52	
N	51		43	

Conclusion and Policy Implication

Paddy is the important food grain of country constituting 40 per cent of the total food grain production. The declining trend noticed in the area and productivity resulted in decline in the state rice production lead to shrink in the food basket and questioning the food security of the state. This warrants explore the input use pattern and identify the input responsiveness for improvement in the rice production in Tiruchirapalli district. The present study used the primary data set available in the CCPC scheme for two period 1996-98 and 2005-08 from paddy growing sample farmers in Kulithalai and Lalagudi Taluks of Tiruchirappalli district. The Cobb- Douglas production function was used in estimating input elasticities.

The results revealed that the decline in rice area in both Trichy and the stat during last decade should be compensated by increase in productivity from 2.6 t/ha to 3.2 t/ha between 1996-08 to 2005-07. The further increase in production and productivity would be by increase in use of potash and Farm Yard Manure which are still under sub optimal level of input use. Hence, efforts may be taken to maintain the soil fertility by enhancing the use of organic manure application for sustaining the rice production in Tricy district.

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Credit Card Changes The Consumer Behaviour- A case study in Tiruchirapalli Town

Introduction :

Credit card or the plastic money, as it is popularly referred to, was slow to enter the Indian market because of the high sentimental value that Indian consumers attach to hard cash. Prevalence of small value transaction, credit shy culture and inadequate banking habits of the population were other hindrances. Credit cards arrived in India about two decades ago. In the early stages its growth was very slow in terms of number and value. Even the number of players was limited and mainly foreign banks like HSBC, Citibank and Standard Chartered Bank dominated the market. Indian banks did not show much interest in the product in the initial stages. This is evident from the fact that it took State Bank of India (SBI), India's largest bank, almost a decade to begin dealing in credit cards. SBI, despite its widespread reach, has aggressively started promoting credit cards only three years ago. However, in the recent past the scenario has changed dramatically. The number of nationalized and private banks issuing credit cards has increased significantly. Credit cards are now not only integral parts of the consumer's life in metros, but even residents of smaller cities and towns have taken to them. This can be attributed to the aggressive strategy of nationalized and private banks to promote card products in smaller town and cities. These banks have far wider reach and depth in smaller cities and town as compared to foreign banks. They have capitalised on this advantage to play a major role in expanding the credit card base in terms of number and usage in smaller cities and town. There is no doubt that credit cards are very convenient, especially in case of daily expenses..

Scope of the study:

People prefer to do shopping with credit cards rather than with cash. Therefore there is a need to study the extent to which credit cards have influence over buyer behaviour. So the current study undertaken this area.

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Objectives of the study:

The objectives of the present study are

1. To analysis the reasons for people holding credit cards
2. To find out which bank's credit card is mostly influence by the customers
3. To trace out whether the credit cards influence the customer's buying behavior

Methodology of the study:

For this study Tiruchirapalli city has been selected. Primary data were collected by means of an elaborated direct interview schedule through a well designed questionnaire. A random of 100 credit card consumers interviewed directly.

Analysis of Data Collected:

Table : 1
Reasons for Holding Credit Cards

Reason	Respondents	Percentage
Convenience	26	26
Emergency	60	60
Status	14	14
Total	100	100

Source: Primary data

From the above table 60 percent of the respondents hold credit cards for their emergency withdrawal and 26 percent of them were using for their convenience and only 14 respondents using for status.

Table : 2
Frequency of Purchase using credit cards

Frequency	Respondents	Percentage
Frequently	80	80
Occasionally	20	20
Total	100	100

Among 100 respondents 80 of them using credit cards to purchase commodity frequently and only 20 respondents using credit cards occasionally.

Table : 3

Value of purchase through credit cards is high

Opinion	Respondents	Percentage
High	80	80
Normal	10	10
Low	5	5
Total	100	100

Source: Primary data

It is clear from the above table that 80 percent of the respondents were purchasing the high value of commodities. And 10 of them were purchasing normal value of commodities. 5 percent purchasing low value of commodities.

Table : 4

Credit card leads to unnecessary purchase

Needs of purchase	Respondents	Percentage
Necessary	25	25
Unnecessary	75	75
Total	100	100

Source : Primary data

The above table shows that 75 percent of the respondents were purchasing unnecessary commodities by using credit cards and 25 percent of the respondents were purchasing only necessary commodities.

Findings

- a) Most of the respondents agree with the point that holding of credit cards, affect the saving tendency of people.
- b) Credit card holders mainly use it for their emergency purchase.
- c) Frequency of purchases is normally increased by credit cards.
- d) Credit cards change the buying behaviour of the holders.
- e) Using credit cards the holders are purchasing valuable commodities
- f) Among 100 respondents most of them holding HDFC cards
- g) 80 % of the respondents opinion credit cards leads to unnecessary purchase
- h) Many of them using credit cards for e-commerce, e-billing, and for e-banking purposes.



ROLE OF FERTILIZER MARKETING IN AGRICULTURAL DEVELOPMENT

(A study on Marketing of Fertilizers of Thanjavur District)

Introduction

Agriculture accounts for nearly 1/4th of India's GDP and more importantly, about 2/3rd of the country's population is dependent on agriculture and allied activities for their livelihood. Behind India's success story of not only meeting total requirement of food grains but also having their exportable surplus, the significant role played by chemical fertilizers. Chemical fertilizers have played a vital role in the success of India's green revolution along with irrigation and credit and consequent self-reliance in food grain production.

Fertilizer Marketing

Marketing is defined as "the performance of business activities that direct the flow of goods from the producer to the consumer". The product, price and promotional activities involved in the distribution of fertilizers is known as fertilizer marketing.

Agricultural development promotes general economic development. It is therefore necessary that it should receive due importance in terms of marketing of agricultural inputs especially fertilizers which boost-up the agricultural output as a whole. Farmers in India are using both chemical fertilizers and indigenous manures like cow dung, compost etc to give strength to the soil.

Objectives of the Study

The following are the objectives of the study.

- Ø To examine the existing fertilizer marketing network and fertilizer market.

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- Ø To examine the different marketing channels and explore into the efficiency of these channels
- Ø To examine the fertilizer usage and purchase behaviour of the farmers
- Ø To suggest measures for improvements in the system of fertilizer distribution.

Methodology

A total of 120 farmers and 50 traders comprising of co-operatives, private retailers and wholesalers from Thanjavur District of Tamil Nadu was chosen as study area which is the rice bowl of Tamil Nadu. The fertilizer traders were personally interviewed using the Schedule.

From the sample farmers, information on the land holding, cropping pattern, fertilizer usage, quantity and pattern of fertilizer purchases, technical knowledge about fertilizer usage, sources of information on farming practices, brand and dealer preference, problems faced by the farmers in obtaining fertilizers etc., was collected through a structured Schedule. The marketing practices of fertilizer traders were also analyzed.

The Analysis

The results of the analysis are presented under the following heads.

1. Existing Fertilizer Marketing Network and Description of Fertilizer Market

a. Fertilizer Market

Since 1991-92, the fertilizer market has undergone a phenomenal change with Government decision to slowly phase out the Rs.5000 crores subsidy given to fertilizer and decontrol it. Though nitrogen fertilizer is under total control and priced, the prices of Phosphatic and Potassic fertilizers have gone up substantially due to decontrol. This has pinched many manufacturers and sales have come down. Therefore, the manufacturers have to be prepared for such as eventually when 4 'P's namely Product, Price, Place (Distribution) and Promotion of marketing mix will be in their total control.

b. Fertilizer Distribution

Distribution is a system of interesting activities of agencies which moves the input from place of production to the ultimate buyer. No selling technique, advertisement and sales promotion efforts can prove adequate unless the right product is made available

right place, at the right time, in the right quantity at the right prices. The choice of right distribution channel is of paramount importance to the manufacturers.

c. Fertilizer Pricing

The sale prices of controlled fertilizers are fixed by the Government of India under the Fertilizer (Control) Order, 1985, issued under the Essential Commodities Act, 1955. FCO provides that the Central Government may, with a view to regulating equitable distribution of fertilizers and making fertilizers available at fair prices, fix the maximum prices at which any fertilizer may be sold by a dealer, manufacturer, etc.

2. Fertilizer Marketing Channels.

Fertilizer passes through different marketing intermediaries to reach the final consumers (farmers). The intermediaries render a variety of services in the process of marketing with a view to facilitate the process of marketing and at the same time expect the rewards for the services.

The most common marketing channels for the fertilizers in Thanjavur Dist. are of co-operatives, retailers and wholesalers.

Manufacturers à PVT stockiest à Wholesalers à Retailers à Farmers.

Manufacturers à Co-operative Marketing Federations à Co-op. Societies à Farmers.

3. Popularity of Fertilizer Sources Among the Farmers

The most popular source of fertilizer procurement Thanjavur District was the co-operatives. Most of the farmers (68%) purchased fertilizers from co-operatives as the farmers get fertilizers on loan. Since the prices of fertilizers were highest in case of private dealers, only 32% of the farmers purchased fertilizers from retailers or wholesalers because of their accessibility.

4. Fertilizer Usage

The farmers are rational in purchase and use of inputs such as fertilizers based on their experience. Fertilizers constitute a major part of the cost of cultivation along with other inputs such as human and bullock labor, seeds and pesticides.

Policy Implications

After a thorough study of the marketing structure, marketing channels for fertilizers and purchase and usage behavior among the sample farmers of the study area, some of the conclusions and suggestions flowing out of the study are listed below.

1. It was observed that the type of crop grown and accessibility of credit were the important factors influencing quantum of fertilizer usage.
2. For cash crops the fertilizer is used in large quantities.
3. Providing a major share of loan as kind component helps the farmers in better utilization of loans as compared to cash component.
4. Fertilizer companies while releasing new fertilizer brands should rely more on retailer oriented promotion of brands and direct farmer contacting methods.
5. Responsive marketing may be adopted to provide consultancy services to the farmers along with selling of fertilizers.
6. Scientific way of stocking method must be planned.
7. Enhancing the scope of marketability can be done by giving the preferred varieties of fertilizers to the farmers.
8. Coordination must be made among the distribution agencies. Managerial limitations must be overcome by effective planning.
9. The fertilizers should be made available at the doorsteps of the farmers. Farmers must be educated to adopt the safe agronomic practices.
10. Reliable, accurate and timely marketing information is essential to be passed to the farmers through marketing plan.

Hence integrated efforts should be undertaken to provide essential and desirable facilities to the farmers in procuring the fertilizers at right time, at right price and at right place by applying promotional strategies in the fertilizers marketing.

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ECONOMIC ANALYSIS OF LIVESTOCK FARMING IN PERAMBALUR DISTRICT.

Livestock sector plays a crucial role in sustaining rural economy and livelihood and the poor in this sector contribute directly to the economic growth. There is an impressive steady growth of around 6% in this sector in India. For a more balanced development of the rural economy and reduction of poverty, a remarkable progress in this sector is a national requirement.

There has been a shift in the consumption pattern — more of livestock products like milk, meat, fish and eggs. This demand-driven growth has shown a massive increase in demand for foods of animal origin. Clearly this increased demand will drastically stretch the existing production and distribution systems in near future. The livestock productivity will have to be raised through scientific breeding, feeding and management. The scenario calls for formulation of long-term policies by the government and significant investments in the industry. For a sustained economic growth in the rural sector, animal husbandry, dairy, fisheries and poultry should receive a high priority in planning. This will generate not only economic wealth but also self-employment and entrepreneurship.

It is unfortunate that with such an importance of livestock in the Indian economy, the sector has received a step-motherly treatment, whether the issue relates to investment, development or research. It has remained an adjunct of agriculture without any individual identity of its own. The present study attempts to provide an analytical evaluation of many aspects of livestock sector. With its comprehensive coverage, the study of the economic analysis will meet the demands of the policy-makers and all those interested in the livestock economy of India in India and abroad."

Though various studies have been done on the income and employment potential of livestock enterprise in other parts of our country, studies on livestock farming in the District level is very much limited. Hence the present study has been taken with the following objectives.

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OBJECTIVES

- ❖ To measure the impact of livestock production on income, employment and consumption of the households.
- ❖ To identify the constraints in livestock farming and suggest the ways and means to overcome them.
- ❖ To examine the linkages between the size of livestock population and the production of animal feeds.
- ❖ To assess the growth of livestock population, production and productivity in the District.

Primary data pertaining to land holdings, educational status, livestock inventory, cost of production of livestock products, income from different sources, employment pattern in livestock rearing, consumption of livestock products and constraints in livestock farming will be analysed using statistical tools in the study.



HOUSEHOLD WATER ACCESS AND IN-STREAM USES – AN ECONOMIC ANALYSIS

Introduction

According to the information provided by Ministry of Water Resources, the present annual water availability in India is nearly 4,000 cubic kilometer. Per capita annual utilizable water availability is drastically decreased from 3,450 m.in 1951 to 1250 m.in 1999 and it is expected to further decrease to 760 m in 2050 A.D. (IGIDR,2004). Out of the total fresh water supply rivers, lakes and other water bodies as surface water, capture only 1780 cubic kilometers of water. Out of this only 50 per cent can be put in to beneficial uses because of topographical and other constraints.

Problem of the Study

There are more variations across states in access to safe drinking water in urban and rural areas. More than 85 per cent of the households in Gujarat, Haryana, Maharashtra, Punjab, Rajasthan and West Bengal were estimated to have access to safe water. In contrast, in Andhra Pradesh, Bihar, Kerala, Orissa, Tamilnadu and Uttar Pradesh, less than 75 per cent households had such access. Over 1981-91 period, there was a decline or near stagnation in access to safe drinking water in urban areas of Gujarat and Kerala, while significant improvements were reported from Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Orissa and Uttar Pradesh. The per capita water supply to Class I cities (population more than 1,00,000) is 147 lpcd (liters per capita daily). However it is far below for cities and towns of Haryana, Karnataka, Punjab, Rajasthan and Tamilnadu where the average water availability is less than 100 lpcd.

In order to meet shortage of municipal water supply, people are collecting water from ground water sources and directly from surface water bodies. This will definitely affect the health status of the people. In many places, people perform their water need services like, bathing, washing, cleaning, etc, in the water bodies itself. These are lowering

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the surface water quality to a remarkable extent, and great challenges to carrying capacities of such water bodies. People with adequate economic power get sufficient quantity of water with better quality. But, people of lower income groups are largely affected through poor access of other than municipal sources and also affected by untreated water collected from such sources.

Objectives of the Study

Following are the specific objectives of the study:

1. To understand the water needs of the households according to economic groups;
2. To estimate the pattern and quantum of water access by the households from different sources;
3. To account the households direct use of water from the surface water bodies itself;
4. To examine the factors forced the households for direct use of water;
5. To suggest the policy measures to improve the protected water supply to the households.

Study Period and Area of the Study

The present study considers 2007-08 water year (June-May) as study period. Household survey for the study has been conducted during the period's between July and September, 2008 .

The study area is Vallam Town Panchayat in Thanjavur district. The town is located in State Highways, and 7 kms away from Thanjavur district head quarters.

Sample Design

Present study follows a multi-stage random sampling method. There are 3102 households living in 60 streets of Vallam town panchayat.

Method of data collection

By primary and secondary methods the data for the study are collected.

Tools of Analysis

The data collected from primary and secondary sources were analyzed with help of relevant techniques like bi-variate tabulation, percentages, averages, standard deviation, and diagrammatical representations.

Summary of Analysis and Discussion

The study takes income as a control variable and all other variables are explained according to the income groups of sample households. Households in the study are grouped in to four, as low income (<Rs.30,000 annual income), middle-lower (Rs.30,000 to Rs.50,000), middle-upper (Rs.50,000 to Rs.1,00,000) and high income (> Rs.1,00,000). Following are the summary of the analysis and discussions

Income

Annual mean income varies from Rs.25,615 for low income group to Rs.1,78,033 for high income group.

Housing condition

- ❖ Among the total households, 72 per cent have own house, 27 per cent have rented house and only one household has leased-in house.
- ❖ 76 per cent of sample households are residing in individual houses, 16 per cent in group houses and 8 per cent in apartments.
- ❖ In total, one-third of the households live in thatched houses, another one-third live in tiled houses, and remaining in terraced houses.
- ❖ 81 per cent of the low income group households and 36 per cent of middle lower income group households have the houses in outskirts area.

Size of Households

- ❖ Average size of the household varies between 3.69 persons for lower income group to 4.28 persons for higher income group. This average for all income groups is 3.81 persons.

Education

- ❖ There is a strong and positive association observed between household income and average years of schooling of household members.

Occupation

- ❖ Twenty five per cent of the households have agriculture as main occupation.

Assets

- ❖ Present asset value proportionately increases with annual mean income, and it ranges from Rs.80,000 for low income group to just over Rs.4,00,000 for high income group.

Sources of Drinking water

- ❖ According to the field survey, 40 per cent of the households have well water access, 59 percent have municipal water house-connections, and 40 per cent depend on street post/public hand pump for their water access.
- ❖ All most all the households in low income group depend street post/hand pumps for their municipal water needs.
- ❖ Out of this, 35 are bore wells and remaining are open wells.
- ❖ Well water is used to fulfill all household water needs below the drinking purposes, i.e. used to bathing, washing, cloths and vessel washing, cleaning, toiletry purposes, etc. Even though, the well water is suitable for drinking, people do not use them for that purpose. Among the 41 household wells, 24 have sole ownership and remaining 17 wells are owned by the household jointly with others.

Investment for water

- ❖ Average size of investment varies according to income groups. It varies from Rs.41,500 for low income group to Rs.81,858 for high income group.

Nature of the resource ownership

- ❖ Among the total connections, 64 per cent is owned individually and remaining connections are owned jointly with other residents.
- ❖ While observing the age of water connections, it has some positive association with income groups.

Water Utilization

Average aggregate household allotment for all uses becomes 162.4 liters per day. In which 12 per cent is allotted for drinking, 18 per cent for cooking, 13 per cent for

cleaning vessels, 23 per cent for washing cloths, 25 per cent for bathing and sanitation, 9 per cent for entrance cleaning.

Households use exclusively municipal water for drinking and cooking. For other uses, they allot combination of both municipal sources and remaining from ground water sources.

In an average, sample household members use 40 lpcd of water from these organized sources. Further, they rely upon canals and ponds for in-stream and in-situ use of water.

People allot collected water for occasional and non-regular water uses like house cleaning, vehicle cleaning, animal bathing and gardening in the following manner. For house cleaning, households use an average of 18 liters water ; for vehicle cleaning requires 19 liters, and for gardening 13.6 liters.

Suggestions

On the basis of current analysis, the study tries to give the following suggestions to improve the connections of water supply. More than 40 per cent of the households, most of them from lower income groups, have no municipal water house-connections. Municipal authorities should increase the number of street-posts from the present rate of one post for one street. This will definitely reduce work burden of women members of household, and will reduce considerably economic and loss to them.

Households with higher income have municipal house-connections. But, such facilities for households in lower income strata are far reaching one.

Presently, 86 out of 104 households are practicing in-stream and in-situ water uses in the surface water bodies for one or more purposes like bathing, washing clothes, washing vehicles, and bathing animals and pets etc.

In the study, only 48 per cent of the sample households have toilet facilities in their house premises. And, 38 per cent of households (all or part) use open place for toiletry purposes. This is a dangerous condition to protect our environment and particularly, to protect our valuable and ever-slackening fresh water resources.

Conclusion

At the United Nations Millennium Summit in September 2000, world leaders adopted the Millennium Declaration containing eight Millennium Development Goals (MDGs). One of which is to have the proportion of people living in poverty and suffering from hunger by 2015. Governments also pledged to meet 18 targets, including the target to have the proportion of people without access to safe drinking water by 2015. For this government and local authorities should use all sorts of supports from local communities, women groups, voluntary organizations, and international organizations to speed up the process.

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A STUDY ON THE EFFECT OF LIBERALISATION AND GLOBALISATION IN SYNTHETIC GEM INDUSTRY IN TIRUCHIRAPPALLI DISTRICT

INTRODUCTION

There is no doubt, today is an era of liberalization, privatization and globalization. But I would like to submit this paper which everyone wants to know, how far this LPG would affect the ever-green synthetic gem industry in Tiruchirappalli District.

Matters discussed in this paper

1. International trade and Marketing:
2. Emerging trends in Liberalization and Globalization.
3. Synthetic Gem Industry in Tiruchirappalli District
4. Effect of Liberalization and Globalization in Synthetic Gem Industries.
5. Suggestions to overcome the challenges.
6. Conclusion

Synthetic Gem Industries in Tiruchirappalli

An industry, which produces synthetic gemstones, is called synthetic gem, industry. Synthetic gemstones are those, which have the same chemical compositions, crystal structures and physical properties as the natural counterparts. Synthetic gems can be manufactured that so resemble natural gems.

India has a very rich gem and jewellery culture. It has a long and prestigious tradition in the gem trade. In and around Tiruchirappalli is the major center for the synthetic gem industry and also effectively functioning in adjacent districts of Pudukkottai and Karur but little-bit functioning in some of the other areas of Tamil Nadu. It is a traditional labour intensive small-scale industry. Synthetic gemstones are more beautiful and less costly than the natural counterparts

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Effect of Liberalization and Globalization in Synthetic Gem Industry: (Survey Report)

The Gem manufacturing industry is the traditional one and in particular, Synthetic Gem manufacture industry is almost 120 years old in and around Tiruchirapalli, which is solely, lies under the category of Small Scale Industry. There are around three lakhs families are involving themselves in the manufacturing of synthetic gem.

Because of the impacts of Globalization and Liberalization, the synthetic gem industry is about to vanish. The real position of the manufacturer, trader and labourers of this industry is in a miserable and pathetic condition. They cannot switch over from this industry to any other jobs because of their illiteracy and lack of knowledge about other jobs. Because of the reduction in import duties and reduction in physical restriction on imports the eastern countries like China, South Korea, North Korea and European countries like Switzerland are playing a dominant role and there is no doubt in capturing of our Indian market too.

The factors of Liberalization, which affects this synthetic gem industry. are as follows: -

1. Reduction in physical restriction on imports; Reduction also in the rate of import duties;
2. To make various sectors of Indian economy competitive on a global scale, by making them produce quality goods on a cost effective manner.

Suggestions:

1. The import duty of the raw material of synthetic gem should be completely removed.
2. There should be no duty on importing semi automatic machines for this industry.
3. There should be either a ban on import of finished synthetic gem or increasing of import duty.

4. To compete with global market there is a need for centralized information system to inform about the latest technical know—how and development of the synthetic gem industry with the help of the Government.
5. Through this National Seminar we plead the XXX Annual Conference of Association of Economists of Tamil Nadu to recommend the Government of India to adopt the above suggestions and to take necessary steps to safeguard the people who are involved in this industry.

CONCLUSION

Internationalisation marketing is a welcoming factor and it is the order of the day. But with regard to this industry, as per the analysis, Chinese effectively utilizing this concept of LPG and swallow our entire synthetic gem market. Today, the persons engaged in this industry, specifically manufacturer and worker, goes to a very miserable position and find hard themselves to live.

Through the analysis, the paper presenter comes to know, unless otherwise the government would take initiative and effective action against it and implement some of the suggestions given in this regard, dam-sure this industry will come to vanish very soon without any doubt.

ENVIRONMENTAL IMPACT OF DYEING INDUSTRY IN KARUR DISTRICT

Introduction

"LET'S PRESERVE OUR PLANET"

"STOP POLLUTION SAVE ENVIRONMENT"

"Preserve Environment and Save Human Life" Now-a-days this is present day slogan through out the world. To protect the Environment, Even the world body, UN is spending a lot in this line. Almost all the countries have been insisting their industries to control air and water pollutions.

The Indian Government has identified six major rivers as polluted Sabarmathi, Subernerekha, Godhavari, Kriahana, Indus and its major tributaries. In all cases untreated domestic sewage and industrial effluents have been wreaking havoc. It is estimated that municipal sewage accounts for 80% of polluting effluent in our country.

Water pollution is a large set of adverse effects upon water bodies (lakes, rivers, oceans, groundwater) caused by human activities.

STATEMENT OF THE PROBLEM

Environmental pollution is assuring dangerous proportions throughout the globe and India is not free from the disastrous effect of pollution India has its addressed if it has to continue feeding its urgently population and meet the basic necessities. The deforestations problem, besides leading to waste lands and Erosion of fertile soil, is also intimately connected with global warming problem.

AREA AND PERIOD OF THE STUDY

This study has been undertaken in Karur District to know the polluted water emitted on dying industry has been assessed from the point of view of the residents for the period of 2008 to 2009.

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OBJECTIVES OF THE STUDY

This study has been carried out with the following objectives.

1. To study the impact of chemical on the living conditions of the public.
2. To enumerate the summary of findings and the possible steps to bring down the effect of emissions from the dying factory on the environment.

SAMPLING DESIGN AND METHDOLOGY

To find out impact of the chemical water on the living conditions of the public 50 residents from the area around Karur is taken. The researcher used the interview schedule for collecting information regarding the level of impact among the residents.

Primary data were collected through interview with public and workers in dying factory secondary data regarding the meaning, sources, effect and the steps taken by the government to control pollution were collected from magazines, newspapers and reports.

ANALYSIS AND INTERPRETATION

To, find out the impact of the dying industry on the resident, an impact scale consisting of 17 components has been constructed. The extent of impact is found out by allotting scores for each component.

WATER POLLUTION

Water pollution is the introduction into fresh or ocean waters of chemical, physical or biological material that degrades the quality of the water and affects the organisms living in it. This process ranges from simple addition of dissolved or suspended solids to discharge of the most insidious and persistent toxic pollutants (such as pesticides, heavy metals, and nondegradable, bioaccumulative, chemical compounds).

"Water is the matrix of life". Life originated in water and thriving in water. Water the most abundant of substance of earth, singularly is found in nature as gas, liquid or solid, the water supply may be from

1. Rain or show
2. Surface water (rivers, ponds, lakes and waste water) and
3. Ground water (deep wells and springs)

ENVIRONMENTAL IMPACT ON THE LIVING CONDITION OF THE PUBLIC

This chapter deals with the environmental impact of Chemical water on the living conditions of the public. The term impact means striking against something with force," the impact of chemical water is felt differently by the public. The level of impact of chemical water will indicate the extent to which the chemical water creates effects on the living conditions of the public.

The level of impact varies as to persons and factory. A comprehensive study has been made to high light the level and extent of impact of Chemical water on the living conditions of the residents by taking certain components.

Impact Level.

The extent of impact has been arrived at by applying a scoring scheme.

Component Analysis

Impact level of the residents is increased with the help of a scale constructed with 17 components. The impact of these 17 components on the living conditions of the public varies, since some components are more significant. A detailed component wise analysis has been attempted in the following paragraphs.

Impact level of residents for cleaning the house

S.No.	Category	No. of Respondents	Total Scores
1.	Agree	40	40
2.	Strongly Agree	5	10
3.	Disagree	4	-4
4.	Strongly Disagree	-	-
5.	No opinion	1	0
	Total	50	46

The above table shows that 40 respondents have agreed, 5 residents have strongly agreed, 4 residents have disagreed and 1 5 residents have no opinion to the statement that the compact level of residents for cleaning the house is to be done frequently.

SUMMARY OF FINDINGS

The main purpose of this research is to know from the public whether dyeing factories have created any environmental impact that resulted in damaging their routine life.

- ↓ The emissions from the dying factory, which leads to following problems.
- ↓ Clearing the house is not a frequent work.
- ↓ Drinking water polluted by chemical water.
- ↓ Chemical water on the clothes makes them rough, and stiff, which in turn may turn the clothes.
- ↓ Working the clothes is very difficult and also durability of clothes is reduced.
- In order to keep them away from the dyeing factory people construct their house far, due to that they have to face conveyance expenditure.
- The emission from the dyeing factory the children and the old age peoples are affected more, due to that they have bear medical expenditure.
- The emission from the dyeing factory, the people affected more in order to that the capacity to work is reducing.

SUGGESTIONS

The impact of chemical water on the farming operation can be reduced by the following ways.

- o The pollution control board must be stringent in enforcing all the plants for equip with pollution abatement machineries. Permission to start a chemical plant in a particular locality must be given after examining the adequacy of provision to made combat pollution.
- o The protection of pollution control equipment indigenously should be encouraged and the necessary research and development efforts should be put in where imports are essential and also the government must select skill full persons and arrange trainings in foreign countries in handling the pollution control equipments.

- o The government must give incentives to encourage them for knowing the importance of protecting environment.
- o The government must take steps to allocate quality chemicals to that industry, which will prevent damage to operations.
- o Industries must have a safety engineer and industrial engineer. Environment protection department must be established in each unit and environment specialist must be employed. Above all awareness regarding the source and the effects of our pollutants must be prevalent among the layman and the industrial people in order to achieve a pollution free environment.

CONCLUSION

Pollution is assuming dangerous proportion through the globe. It can also be the consequence of a natural disaster. Pollution from dyeing factory, it was affected as children, old age people's, water pump set and also affect the plants.

This study is an attempt to find out whether dyeing industry causes ill effects on the environment. The study aims at knowing the types of pollution, the safeguards provided by the government, the environmental impact on the living conditions of the public

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A STUDY ON DALIT PANCHAYAT PRESIDENTS IN TIRUCHIRAPPALLI DISTRICT

This article attempts to analyses the socio economic background of dalit panchayat president in selected blocks of Tiruchirappalli district. There are 47 dalit presidents in seven block of Tiruchirappalli district. All the respondents were selected for the present study. Thus, census method was adopted. The respondents were interviewed during the month of February and March of 2009. The findings of study show that majority (43per cent) of the respondents are in the age group of 31-40. Sex wise both male (53per cent) and female (47per cent) are more or less equal in number. Most (98 per cent) of them are literate with a minimum of 1st stranded to a maximum of graduation.

It is also found that except 3 respondents remaining are married, nearly two third (60per cent) of the respondents engaged in agricultural, more than two third (62per cent) of the respondents are living in nuclear family, lived in thatched, tiled and concrete (17per cent), (21per cent) and (32per cent). It is reported that nearly one third (34per cent) of the respondents contested in the election by their own decision another one third (28per cent) contested by the compulsion of their family members, more than one tenth (13per cent) of the respondents found to be the binamies of the upper caste. About one fifth (21per cent) of respondents contested during the previous elections as president (or) ward member. More than four fifth (83per cent) of the respondents informed that ward members are cooperative, more than two third (68per cent) of respondents informed that the upper caste people are also cooperative and more than one tenth (13per cent) of respondents informed that panchayat clerks are not co-operative.

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PATTERNS OF FARM PRODUCTIVITY IN DROUGHT PRONE REGION OF TAMIL NADU

I. Introduction

Sustained growth in agricultural productivity is critical to improvements in food security for two reasons. First, growth in agricultural productivity translates into increased food supplies and lower food prices for consumers. And second, growth in agricultural productivity means higher incomes, and thus improved ability to purchase food and other basic necessities, for many food-insecure people who earn their livelihoods through agricultural production. About 11 per cent of the world's land surface is used for crop production. In addition to this arable land per person is shrinking. In developing countries, it declined from 0.32 hectares/person in 1961-63 to 0.21 in 1997-99, and it is projected to decline further to 0.16 hectares/person in the year 2030.

II. Issues, Objectives and Concepts

The above studies dealt with the various aspects such as relationship between climate change and agricultural productivity, the trend of farm level income, measures of improving land productivity, variation of inputs and the role of government policy also discussed. Only limited studies concentrated on the micro level analysis on drought prone region of Tamil Nadu. In this view the study focused the following broad objectives such as to study the related concepts of farm productivity in agriculture; to find out the trend of farm power productivity in drought prone region of Tamil Nadu. The following section dealt with the related concepts of the present study.

III. Methodology

The present study is an analytical research based on quantitative data using statistical methods. In this view the study based on secondary and primary data.

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Secondary data were collected from Books, Journals, Government Records, Annual Reports and Internet source. The primary data were collected from sample respondents with the help of pretested schedules.

Selection of Sample Size

The present study relied on the random sampling method. A sample size of 51 per cent of the respondents (households) were selected from the selected two villages namely Koviloor and Varanavasi. The main reason is that the number of households are large in both villages. The total number of households of the selected villages are 742 (Koviloor) and 992 (Varanavasi) as per 2001 Census. Hence the sample size of the study is 378 and 506 respectively from Koviloor and Varanavasi villages.

IV. Analysis and Interpretation

The present section illustrated that the profile of the respondents, farm size classification, sources of irrigation, cropping pattern and production of the crops in the study villages of Ariyalur district.

Table – 1
Farm size of the Respondents in the Study Villages

Own Land (In Acres)	Number of Respondents	
	Koviloor	Varanavasi
Large Farmers (10.1 and Above)	18 (5)	11 (2)
Small Farmers (5.1 to 10)	117 (31)	167 (33)
Marginal Farmers (Less than 5)	174 (46)	214 (42)
Landless Farmers	69 (18)	114 (23)
Total	378 (100)	506 (100)

Source: Survey Data

Note: Figures in parentheses are percentages

The above table explains the farm size of the respondents of the study villages. The lion's share (46 and 42 per cent) of the respondents comes under the classification of marginal farmers in the study villages. The next major classification of the study villages is small farmers. Only single digit (5 and 2 per cent) respondents come under the category of big farmers. In this view the following table shows that the various sources of irrigation in the study villages.

Table – 2
Cropping Pattern of the Study Villages

Crops	Cultivated Area (In Acres)			
	Koviloor		Varanavasi	
	2007	2008	2007	2008
Paddy	269.5	235.5	116	114
Sugarcane	264.5	215	93	83
Groundnut	158.5	153	19.55	19.55
Cashewnut	69.5	65.5	-	-
Sesame	31.75	29.75	-	-
Plantain	9	4	-	-
Palmoil	5.5	4	-	-
Coconut	4	1	-	-
Maize	-	-	30	30
Chillies	-	-	33.6	32.6
Cotton	-	-	7.5	8.00
Corn	-	-	81.15	77.65
Sunflower	-	-	7.5	7.5
Others	27.5	30.5	96	96
Total	839.75	738.25	484.3	468.3

Source: Survey Data

Note: Figures in parentheses are percentages

The above table shows the cropping pattern of the study area. It has been revealed from this table that there is no vast change in the cropping pattern. As far as Koviloor village is concerned, in the year 2007, paddy was cultivated in 269.5 acres but it was slightly reduced to 235.5 acres in the year 2008. Likewise all the crops could not retain their places in the year 2008 as in the year 2007. The more affected crop was sugarcane and it has been declined from 264.9 acre in the year 2007 to 215 acre in the year 2008. A few farmers were not cultivate their land due to various reasons such as lack of financial support, lack of irrigation facility and land used for other activities like building, stores and infrastructure. Though the Koviloor village was more affected in terms of area cultivation, Varanavasi could not find any drastic change in the area of cultivation of various crops between the year 2007 and 2008.

V. Findings and Suggestions

The major findings of the study are as follows.

- Ø This study concluded that the respondents are highly involved in agriculture between the age group 41 and 60 in both the villages.
- Ø Most of the respondents (76 and 51 per cent in Koviloor and Varanavasi villages) come under the category of MBC. 21 and 22 per cent of the respondents come under the classification of SC in both the villages respectively. Remaining respondents come under the category of BC in both the villages.
- Ø A lion's share (46 and 42 per cent) of the respondent comes under the classification of marginal farmers in both villages respectively. Only a low share (5 and 2 per cent) of the respondents comes under the category of large farmers in the study villages respectively. The study finds out per household land in the study villages (i.e., 2.60 and 1.11 acres).
- Ø Borewell is the major source of irrigation in the study villages. The second place goes to river irrigation in the study villages. One third of the farmers do not obtain irrigation facility in Koviloor village. On the other hand one fifth of the respondents do not obtain irrigation facility in Varanavasi village.
- Ø Paddy, sugarcane and groundnut are the dominant crops in the study villages. In addition to this, corn and chillies are also grown in Varanavasi village. During the study period, cultivated area declined in both the villages.

Suggestions

- There is no water storage facility in the study villages. Hence the Government should take an attempt to provide tank irrigation facilities and constructing dam as well.
- The Government schemes can be manipulated for improving the cultivation of the study areas in order to increase the production and the interest on cultivation among the farming communities.
- Improving the credit system to manage the crisis of stagnation in the study areas, agricultural development has to be led by ensuring commercial viability, which has to be enabled by an **appropriate credit system**.

Conclusion

Lot of problems are faced in the task of increasing production in agriculture sector among the farmers. Judicious use of natural resources for sustainable production of agriculture, adoption of advanced technology and development of infrastructure for facilitating all agricultural activities, ensure food security that can be tackled only with a strong capital base.

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SOCIO – ECONOMIC CONDITIONS OF BEEDI WORKERS IN TIRUCHIRAPPALLI DISTRICT

Beedi is a cheap smoking device used by millions of people all over the India who cannot afford the pleasure of smoking a cigarette because of the price that is prohibitive taking in to consideration the economic status of the majority of smokers all over the nation. Smoking beedi suited the financial strength of the emerging industries workers and agricultural labours.

STATEMENT OF THE PROBLEM:

The general condition of beedi workers is very poor and despite the various welfare schemes and legislative that are passed to better the lot of beedi workers much remains unimplemented. This study attempts to find out the conditions of life and work of the beedi workers which is characterized by the low income long hours of work huge indebtedness, poor nutrition, unhygienic living condition and workers has remained unchanged. The progeny of the beedi workers are found into this profession at a young age due to economic necessities and end up without education that shackles them to beedi workers do not live but barely service. This interested the researcher to study in detail the life and working condition of the beedi workers.

SCOPE OF THE STUDY:

It is prime objective that to study the various factors affecting conditions of beedi workers. It is well known fact that problems of beedi workers are identified, they are society backward and their economical status is also poor, due to their nature of work they get low income. Illiteracy and heredity play a vital role in determining their social economic condition because, they are ignorant and are not aware of the development programmes available for them.

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OBJECTIVES OF THE STUDY:

- ☐ To study the socio-demographic aspects of the beedi workers
- ☐ To find out the nature of work conditions of the beedi workers
- ☐ To study the awareness of beedi workers with regard to family problems
- ☐ To find out their participation in religious gathering

FINDINGS

- ☐ More than Half (64%) of the respondents belong to the respondents of the age group of 35 - 40 years.
- ☐ Majority (72%) of the respondents are female.
- ☐ More than Half (66%) of the respondents belong to the Muslims.
- ☐ More than Half (52%) of the respondents were coming from urban areas.
- ☐ Nearly half (42%) of the respondents illiterate.
- ☐ Majority (72%) of the respondents having the nuclear family.
- ☐ Half (52%) of the respondents being married.
- ☐ Less than (24%) half of the respondents are having terraced.
- ☐ More than (64%) half of the respondent available of facilities.
- ☐ Half (52%) of the respondents are having full satisfied.
- ☐ Less than one third (32%) of the respondents are expenditure in food.
- ☐ More than Half (54%) of the respondents have the saving habit.
- ☐ More than Half (68%) of the respondents indebted their family members.
- ☐ Less than half (32%) of the respondents having the loan from money lender.
- ☐ Half (64%) of the respondents the social gathering of our community.
- ☐ Majority (72%) of the respondents getting the temporary job.
- ☐ Half (52%) of the respondents are satisfied in our job.
- ☐ Half (58%) of the respondents practice of down, system.
- ☐ Less than half (48%) of the respondents having average health condition.

- ☐ Vast Majority (78%) of the respondents are having the disease in our job.
- ☐ Majority (72%) of the respondents association with our company.
- ☐ Half (64%) of the respondents having the position in our working place.

SUGGESTIONS

- ☐ Steps should be taken to register the beedi workers. So that they will enjoy the security of job.
- ☐ Medical facilities should be improved in the community.
- ☐ The daily wages should be increased.
- ☐ Orientation of the various welfare programmes should be given in order to erase the ignorance and sentiments attitude regarding different crucial issues.
- ☐ Regular medical check-up could be organized by the government, primary health centre, and non-governmental organization for the beedi workers, in order to overcome their occupational diseases.
- ☐ It is suggested that Government may provide alternative job and permanent income sources for the beedi workers.

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LIVESTOCK ECONOMY OF TRICHIRAPPALLI DISTRICT

During the last five decades, the Indian livestock sector has experienced phenomenal growth in outputs of some of its components like milk and poultry. It is true that positive and significant changes have occurred under autarky and regulated domestic markets. India has been following imports substitution strategy to safeguard the sector from external markets through quantitative restrictions on imports. But in the era of globalization significant changes in the structure and performance of livestock industries are likely to occur. These changes will provide opportunities as well as threats. Stated differently, Indian livestock production systems are likely to be vulnerable to trade liberalization. An attempt has also been made to study the characteristics of livestock rearing in Marungapuri Block.

OBJECTIVES

- To explore the characteristics of livestock rearing in Marungapuri Block.

METHODS AND MATERIALS

There are 49 villages in Marungapuri Block. Based on livestock population these villages have been classified into three categories as low, medium and high groups. Two villages from each group have been selected using random method. The list of livestock rearers of a village has been obtained from the VAO's (Village Administrative Officer) Office. The addresses of people rearing all kinds of livestock have been extracted from the list.

The data relating to age, sex, community, occupation, family size, education and source wise income of the respondents have been obtained. Details on borrowings of the sample household for livestock rearing, livestock wise net income of the respondent, fixed expenditure for livestock maintenance, and variable expenditure for livestock maintenance of the respondent, livestock population, livestock income and so on were collected for the present study.

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From each category of villages 40 respondents rearing all kinds of livestock have been chosen using simple random method. In this way, a total of 120 respondents rearing all kinds of livestock have been chosen using stratified simple random sampling technique. Details are given in the following table.

Category	Village Name	Total Number of People Rearing all Kinds of Livestock	Number of Respondents Selected
Low	Kannukuli	204	20
	Pidarapatti	195	20
Medium	Kavundampatti	245	25
	Ekaraikoshikurichy	153	15
High	Marungapuri	223	22
	Valanadu	184	18

ANALYSIS AND DISCUSSION

LIVESTOCK WISE NET INCOME OF THE RESPONDENTS(Rs.)

Category*		Milk Group	Draught Power Group	Ovine Group	Egg Group	Total
Low	Gross Income	333570	188500	247500	24140	793710
	Total expenditure	121925	22975	74945	0	219845
	Net Income	211645	165525	172555	24140	573865
Medium	Gross Income	602503	94750	225100	20825	943178
	Total expenditure	185275	4670	36705	170	226820
	Net Income	417228	90080	188395	20655	716358
High	Gross Income	510621	224700	231600	19040	985961
	Total expenditure	257415	36100	42000	100	335615
	Net Income	253206	188600	189600	18940	650346
Total	Gross Income	1446693	507950	704200	64005	2722848
	Total expenditure	564615	63745	153650	270	782280
	Net Income	882078	444205	550550	63735	19,40,568

Source: Primary Data

*** Panchayat with extent of livestock population.**

The livestock includes draught power, milch, meat and other animals. In the study area the main source of draught power is bullocks. Bullocks were used for farm operations such as ploughing, harrowing, sowing, interculturing, transports etc., whereas cows and buffaloes i.e., milch animals were the main source of milk supply. The number of livestock has a relationship with the size of the population. However, now-a-days due to mechanization, the requirement of draught animals has decreased to some extent. As against this, due to the spread of milk collection from co-operative centers and dairy business, which is considered as a profitable enterprise, the milch animals rearing, is increasing. The details regarding the livestock wise net income of the respondents are presented in Table 4.3.10.

It can be seen from the table that the gross income was highest with Rs.985961.00 in high livestock population. In the low category in Rs.7,93,710.

The gross income of the medium group is Rs.9,43,178. The gross income is the highest in high group with Rs.9,85,961.

FINDINGS

- ❑ Of the 120 respondents, 38.33 per cent belong to the age group of 31-45.
- ❑ 52.5 per cent of the respondents belong to most backward community. The caste-wise data reveal that the Ambalakarar with 15.83 per cent forms the single largest group.
- ❑ The analysis points out that majority of the respondents (64.17 per cent) are agriculturists. For 25.83 per cent of the respondents primary occupation is livestock rearing only.
- ❑ Though majority of the respondents have reported that agriculture is their main occupation, the researcher has found that 75.87 per cent of them get their income through livestock rearing.

- ❑ In the low, medium and high regions cross bred cows accounted for 57.51 per cent, 58.10 per cent and 49.28 per cent respectively.
- ❑ 38.16 per cent of the respondents are engaged in livestock maintenance to get regular income for the family.

POLICY IMPLICATIONS

- ❑ The present study indicates that milk income increases with the increase in number of cross bred cows in the sample households. Thus the scale of finance given under dairy scheme must be enhanced so as to enable the beneficiaries to purchase quality animals.
- ❑ Further the fodder value determines the livestock income positively and significantly. At present a very small area is devoted in the study area for the cultivation of fodder crops. Hence the farmers of this region should be encouraged to take up cultivation of green fodder crops on a commercial basis and they should be provided with quality seeds. Moreover, the wastage of fodder through wrong feeding practices and improper storage should be minimized.

DEMAND FOR MONEY IN RURAL AREA OF TIRUCHIRAPPALLI DISTRICT

The structure of holding money balances when examined in details, over a period of time across different industry categories would throw significant information as regards the nature of demand for money in the various industry categories and their structural properties. Further the trend over the years will reflect the kind of liquidity preference underlying the different industries. In addition such an analysis will be useful to know the stability or otherwise, characterizing the various components constituting the cash and bank balance. The cross section details on these aspects would reveal the impact of the structural characteristic of the industry demand for money in the large limited companies. The changes in monetary policies of the country, vagaries in the market demand for the products produced, access to finances through different financial institutions etc. would all account for the extent of variations experienced in the demand for money in its various forms in the industries in reference.

The relation between the demand for money balances and its determinants is a key element in most theories of macro-economic behaviour. In addition, the demand for money is a critical component in the formulation of monetary policy. Although interest rate intervention is monetary policy's main instrument to achieve price stability, monetary aggregates continue to be an important intermediary target used to gauge the stance of monetary policy. For years the stability of money demand equations has been an important area of research among central bankers. Not surprisingly, numerous estimates of money demand equations using different databases, different estimation techniques, for different countries and different time periods can be found in the literature. Scale elasticity measures vary considerably both empirically and theoretically, from one half or less in the case of Baumol-Tobin transactions demand models to those more in line with cash-in-advance models with elasticities near one or those greater than one.

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Objectives

- ☐ To study the impact of socio-economic status on credit demand for money.

Methodology

This is mainly a primary study. Only the basic motives are given weightage. There is no scope for Rational Expectations or portfolio selection.

This study aims at analyzing the pattern of demand for money in the rural areas of Tiruchirappalli district. Some pockets of the districts are backward and some pockets of the districts are developed. Hence, there is need to analyze relative status of demand for money in the developed blocks and backward blocks.. This study is primarily analyzing the demand for money in the exploratory framework. Then the households socio-economic characteristics are correlated with various aspects of demand for money and thereby it gives analytical orientation to this study. Thus, this study is partly exploratory and partly analytical in nature.

Analysis and Discussion

Table 1 Occupation wise Respondents' Transaction Purpose of Holding Money

Occupation	To Buy Food grains and Groceries	To Buy Food grains and Vegetables	Groceries Vegetables Beverages and Tobacco Products	Groceries Vegetables Fuel, Transport	All	Total
Agriculture	26 (15.20)	39 (22.81)	41 (23.98)	28 (16.37)	37 (21.64)	171
Business	5 (9.62)	6 (11.54)	7 (13.46)	5 (9.62)	29 (55.77)	52
Private Sector Employees	7 (12.07)	8 (13.79)	6 (10.34)	9 (15.52)	28 (48.28)	58
Wage Labour	29 (43.94)	7 (10.61)	5 (7.58)	6 (9.09)	19 (28.79)	66
Rural artisan	6 (15.00)	9 (22.50)	8 (20.00)	7 (17.50)	10 (25.00)	40
Total	73 (18.86)	69 (17.83)	67 (17.31)	55 (14.21)	123 (31.78)	387

Chi square value = 67.64 df = 16* significant at 1 per cent level

Source: Computed

Figures in Parentheses denote percentages

A study of data in table 1 indicates the occupation wise respondents transaction motive of holding money. It could be noted that majority of the wage labourers have transaction motive to hold money to buy food grains and groceries. Whereas agriculturalists have transaction motive of holding money to buy groceries, vegetables, beverages and tobacco products and also considerable number of rural artisans (20%). In this study majority of the business households (55.77%) and private sector employee households (48.28%) have various types of transaction motive to hold money to buy different goods and services such as to buy food grains, groceries, vegetables, beverages, tobacco products, fuel and transport cost.

Conclusion

In developed villages, all the socio-economic variables determine the credit demand for money by 86 per cent whereas this has been 91 per cent for backward villages. The higher value of R^2 for both the developed and backward villages validated the hypothesis viz., the socio-economic status has significant influence on credit demand for money.

From the results it is discernible that the income of the households positively and significantly influence the transaction demand for money in both the developed and backward villages. In both the villages, the value is less than one (<1) complying the change in transaction demand for money due to change in income is lesser as compared to change in income. For example, from the value of coefficient of income, it can be inferred that one unit increase in income leads to increase the transaction demand for money by 0.87 unit for developed villages and this has been 0.92 for backward villages.

A STUDY ON THE SOCIO – ECONOMIC CONDITIONS OF LANDLESS AGRICULTURAL LABOURERS IN UDAYARPALAYAM TALUK OF ARIYALUR DISTRICT

INTRODUCTION:

Agriculture has always been the backbone of the Indian economy and despite concerted Industrialization in the last six decades, agriculture still occupies a place of pride and it provides employment to around 60 percent of the total work force in the Country.

OBJECTIVES:

The following objectives are framed for the purpose of present study.

1. To study the socio economic status of landless agricultural labourers in the study area.
2. To examine the problems of landless agricultural labourers in the study area.
3. To study the respondents views on persistence of poverty and measures to eradicate poverty.
4. To suggest some rational policy measures to increase the living condition of the landless labourers.

HYPOTHESES:

The following hypotheses are formulated on the basis of content and meaning of the framed objectives and employing appropriate statistical tools to test them.

1. There is significant socio economic difference among the landless agricultural labourers in the study area.
2. There is significant socio economic difference with respect to problems faced by landless agricultural labourers in the study area.
3. There is significant difference with respect to respondent's views on persistence of poverty and measures to eradicate poverty.

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METHODOLOGY:

Four villages are selected from Udayarpalayam taluk. The selected villages are special grade village panchayat viz. Thirikalappur, Periyathathur, Ayyur and Koovathur. From each village 40 households are selected as sample. Thus totally 160 respondents are selected from the 4 villages by adopting simple random sampling method. Further stratification is also adopted with a view to give relative weightage to their households of different occupational background.

Table 1.

Village wise Respondents' Duration of Annual Employment

Villages	Up to 150 days	150 – 200 days	200 – 250 days	Above 250 days	Total
Thirukalappur	15 (37.5)	10 (25)	8 (20)	7 (17.5)	40
Periyathathur	11 (27.5)	12 (30)	11 (27.5)	6 (15)	40
Ayyur	9 (22.5)	12 (30)	8 (20)	11 (27.5)	40
Koovathur	20 (50)	6 (15)	8 (20)	6 (15)	40
Total	55 (34.38)	40 (25.00)	35 (21.88)	30 (18.75)	160

The study of data of table 1 indicates the village wise respondents' duration of annual employment. It is observed that out of the total 160 respondents 34.38 percent of them get employment up to 150 days per year and 25 percent of them have scope of getting employment in the range of 150 – 200 days per year. It is observed from the data in table that out of the total 160 respondents 21.88 percent of them are expected to get employment from 200 to 250 days per year and the rest 18.75 percent of them get employment above 250 days per year. Majority of the respondents of Koovathur village (50%) get employment up to 150 day per year. The Ayyur respondents occupy the first position with respect to getting long duration of employment per year.

It could be seen clearly from the above discussion that majority of agricultural labourers get employment around 150 days per year. The minority portion gets employment around 250 days per year.

Table 2.
Village wise Respondents' Problems of Employment
And Livelihood³³

Variables	Thirukalappur	Periyathathur	Ayyur	Koovathur	Total
Long hours of working	3.75	3.9	2.75	2.65	3.26
Lack of bargaining power	4.05	4.11	3.95	3.87	4.0
Working during hard summer season	3.15	3.22	2.55	2.69	2.9
Low wage rate	3.91	3.86	2.55	2.66	3.24
Child labour practice	3.44	4.05	3.96	4.5	3.87
Low wage of women labour	4.11	4.22	3.97	3.88	4.5
Lack of organized labour union	3.88	3.99	2.75	2.65	3.32
Inadequate availability of local employment	4.11	4.22	3.97	3.88	4.16
Migration in search of employment	3.75	3.5	2.42	2.56	3.5
Social discrimination	3.75	3.5	2.42	2.56	3.5
Lack of alternative employment opportunities	4.11	4.15	3.95	3.87	4.2
Inadequate income to meet the household needs	3.11	2.49	2.69	3.15	2.86
Difficult to educate children	4.21	4.33	3.75	3.65	3.98
Difficult to take adequate food	3.42	3.56	2.79	2.66	3.1
Increase in the price of essential commodities	4.15	4.26	3.29	3.6	3.34
Inadequate supply of essential commodities through fair price shop	2.76	2.65	2.44	2.52	2.59
Non availability of protected drinking water	2.26	2.52	1.96	1.89	2.15
Difficult to get benefit from the government scheme	3.49	3.89	2.67	2.45	3.12
Repayment of household debt	3.75	3.90	4.21	4.33	4.4
Liquor consumption habit reduces household expenditure	4.21	4.31	4.44	4.26	4.6
Exploitation of land owning class	3.99	3.78	4.22	4.31	4.7
Inadequate days of availability of employment through National rural employment guarantee act	3.79	3.52	2.89	2.49	3.17
Lack of skill to start industries	4.12	4.15	3.97	3.89	4.9
Lack of training to do non agricultural work	3.9	3.87	3.55	2.49	3.45
Total	3.72	3.76	3.27	3.22	3.47

Out of the chosen 24 problems of employment and livelihood the respondents rate first order problem of liquor consumption habit that reduces household expenditure as their secure mean score is 4.16 on a 5 point rating scale. This shows the highest level of problem of employment and livelihood. The respondents rate second problem employment and livelihood in terms of inadequate availability of local employment. In this perception, they secure a mean score of 4.07 on a 5-point rating scale. The respondents rate third order problem of employment and livelihood in terms of exploitation of land owning class as they secure a mean score of 4.60 on a 5 point rating scale. In general, respondents rate fourth order problem of employment and livelihood in terms of low wage to women labour as they secure a mean score of 4.05 on a 5 point rating scale. The respondents rate fifth order employment and livelihood in terms of repayment of household debt as it secures mean score 4.04 on a 5 point rating scale.

Regarding, Lack of skill to start industries, the respondents' secure a mean score of 4.03 on a 5 point rating scale. It occupies the sixth order problem in employment and livelihood. The respondents rate the seventh order problem of employment and livelihood in terms of lack of alternative employment opportunities as their secure mean score in 4.02 on a 5 point rating scale. The respondents secure 4.00 as mean score on a 5-point rating scale with respect to their problem of employment and livelihood in terms of Lack of bargaining power; it is the eighth level problem of employment and livelihood. The respondents rate the ninth order problem of employment and livelihood in terms of difficulty to educate the children as they secure a mean score of 3.98 on a 5 point rating scale. The respondents rate tenth order problem of employment and livelihood in terms of child labour practice as they secure a mean score of 3.45 on a 5 point rating scale. The respondents' rate eleventh order problem of employment and livelihood in terms of lack of training to do non agricultural work as they secure a mean score of 3.45 on a 5 point rating scale. The respondents secure a mean score of 3.34 on a 5 point rating scale with respect to their problem of employment and livelihood in terms of increase in the price of essential commodities and it occupies the twelfth order of priority of employment and livelihood. The respondent rate the thirteenth order priority to the problem of employment and livelihood in terms of lack of organized labour union as they secure mean a score of 3.32 on a 5

point rating scale. The respondents' rate fourteenth order priority to the problem of employment and livelihood in terms of social discrimination as they secure a mean score of 3.27 on a 5 point rating scale. The respondents rate the fifteenth order of problem of employment and livelihood in terms of long hours of working as they secure a mean score of 3.26 on a 5 point rating scale. The respondents rate the sixteenth order priority to the problem of employment and livelihood in terms of low wage rate as it secures a mean score of 3.17 on a 5 point rating scale. The respondents' rate seventeenth order priority to the problem of employment and livelihood in terms of inadequate days of availability of employment through National Rural Employment Guarantee Act as it secures a mean score of 3.17 on a 5 point rating scale. The respondents' rate eighteenth order of problem of employment and livelihood towards difficulty to get benefit from the government scheme as it secures a mean score of 3.12 on a 5 point rating scale.

The respondents' give nineteenth order employment and livelihood in terms of difficulty to take adequate food as it secures a mean score of 3.10 on a 5 point rating scale. The respondents' give twentieth order problem of employment and livelihood in terms of migration in search of employment as it secures a mean score of 3.05 on a 5 point rating scale. The respondents secure 2.90 mean score on a 5 point rating scale with respect to their problem of employment and livelihood in terms of working during hard summer season. This problem is rated as the twenty-first level. The respondents rate twenty second order of problem of employment and livelihood in terms of inadequate income to meet the house hold needs as they secure a mean score of 2.86 on a 5 point rating scale. The respondents rate twenty third order problem of employment and livelihood in terms of inadequate supply of essential commodities through fair price shop as it secures a mean score of 2.59 on a 5 point rating scale. The respondents give twenty fourth order problem of employment and livelihood in terms of non availability of protected drinking water as it secure mean score 2.15 on a 5 point rating scale.

It is interesting to observe among the chosen villages that the respondents of Periyathathur village occupy the first position with respect to their overall realization of problems of employment and livelihood as they secure a mean score of 3.76 on a point rating scale. The respondents' of Thirukalappur village occupy the second position with

respect to their overall realization of problems of employment and livelihood as they secure a mean score of 3.72 on a 5 point rating scale. The respondents' of Ayyur village come to the third position in their overall realization of problems of employment and livelihood as they secure a mean score of 3.27 on a 5 point rating scale. The respondents' of Koovathur village occupy the last position with respect to their realization of problems of employment and livelihood as they secure a mean score of 3.22 on a 5 point rating scale.

FINDINGS:

The result of village wise respondents' access to drinking water reveals that half kilometer distance of access to drinking water occupies the first position among the landless agricultural labourers in the study area, access to drinking water in the range of distance 1½ - 2 kilometer the second, access to drinking water in the range of distance ½ - 1½ kilometer the third and access to drinking water in the range of distance 1½ - 2 kilometer the last.

The result of the village wise respondents views on poverty alleviation programme reveals that majority of the landless agricultural labourers have not get benefit from the poverty alleviation programme.

The respondents rate moderate problems of employment and livelihood to some of attributes. The moderate rating denotes secured means score in the range 3-4. These include difficult to educate children, child labour practice, lack of training to do non agricultural work, increase in the price of essential commodities, lack of organized labour union, social discrimination, long hours of working, low wage rate, inadequate days of availability of employment through National Rural Employment Guarantee Act, difficult to get benefit from the government scheme, difficult to take adequate food and migration in search of employment.

SUGGESTIONS:

In order to uplift the standard of living of the landless agricultural labourers, the Government can provide employment opportunities throughout the year.

To provide more and more employment opportunities to the landless agricultural labourers, the Government can restrict the use of machineries in the fields like digging and deepening of tanks and canals, construction of roads, a forestation etc.,

In order to improve the conditions of landless agricultural labourers, they should be provided with land. The new reclaimed land may be allotted only to them. Waste land also can be distributed to landless agricultural labourers.

Training should be imparted to the landless agricultural labourers in this study area to take up non – agricultural activities like poultry, Dairying, Sheep rearing, etc., which provide them income generation.

CONCLUSION:

From the study, it is concluded that poverty found among landless agricultural labourers can be eradicated by promoting non – farm employment opportunities. Government programmes like NREP, RLEGP, PMRY, JRY, IRDP etc., can enhance income generation of the landless agricultural labourers.

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Challenges and opportunities of Hand loom Sector in Tiruchirapalli District

Introduction

The handloom sector plays a very important role in the country's economy. In Tamil Nadu, 65 lakh people are directly or indirectly employed in the Handloom Sector. The average annual production of handloom cloth in the State is about 2500 lakh metres, of which, contribution made by handloom cooperatives is around 1200 lakh meters. Average annual sales of handloom cloth are Rs.1500 crore, of which, the sales by handloom cooperatives accounts for Rs.700 crore. The average annual export of handloom cloth by Tamil Nadu is Rs.600 crore, of which export sales by Handloom cooperatives through Merchant Export is around Rs.260 crore. Handloom is employing more than 4.29 Lakh weavers' households and about 11.64 Lakh weavers. It is predominantly in the Co-operative Sector as more than 50% of the handloom weavers have been brought under the co-operative fold (against the national average of 25%). The remaining handloom weavers are in the private sector. There are about 2388 Co-operative Societies, of which only about 1313 are working societies. The profitability of the working Societies in the Co-operative fold has also been affected. With this back ground an attempt is made to know the factors which are all affecting the production of weavers in Trichirapalli district.

Importance of the Study

To day it is estimated that about 2500 handlooms operate in both Co-operative and Private sector. As per the statistics available with the Assistant director of Handlooms Trichy, the total number of handlooms in the cooperative sector is 4255 in which 1461 are working looms and the remaining are idle. The value of production during March, 2006 was around 45 lakhs only. The current population depends on weaving and allied works living in Trichy district is estimated to be around 60,000. The weaving communities is Padma Saliyars, Devangas and Mudaliars. The average annual sale of handloom cloth

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by Tiruchirapalli is Rs.42 lakhs during eighties in Devangam Society, but the sale of the society in 2008-09 is only 8.95 lakhs. The hand loom sector has been shrunken. So the study is to be considered an important one in this period.

Objectives of the study

The handloom sector plays an important role in the district's economy. It is one of the largest economic activities after agriculture. There was about 1, 25,000 handlooms weavers in the district of which only about 60,000 handlooms weavers are currently in operation, with most of the weavers switching over to other remunerative professions. The main objective of the study is to find out the reason for switching over the profession. The present study attempts to analyze the growth and prospects of handloom sector in Trichirapalli district. The specific objectives of the study are

1. Reasons for idle of looms
2. Reasons for migrations of weavers
3. To review the problems and hindrances of the handloom sector in this district
4. To suggest concrete measures for the growth of handloom sector

The present study has covered the urban area and villages from Trichirapalli district of Tamil Nadu. This district is selected for this study; because in this district the Devangar and Manamedu sarees are very traditional and famous all over the country. This area is famous for muslin cloth, hand loom cloth and dhotis. This study is compiled with the help of both secondary and primary data. Secondary data have been collected from the books, journals, websites and the primary data covered only three months period (July-September 2009). The primary data were collected with the help of specially prepared interview schedule. The schedule included the questions related to the general information about the weavers, income, expenditure, savings and loan schemes available to them. Totally 100 respondents were selected only percentage and average were used for the analysis.

Analysis with primary data

Table 1 Loom Ownership

Particulars	No. Of Respondent	% of Respondents
Owned loom	68	68
workers	32	32
Total	100	100

Sources primary data

Loom ownership 68 of them are working in their own looms.32% of them are engaging the pre loom process.

Table 2 Looms functioning in around Trichirapalli district

Particulars	Before 2000		Position as on 2009		% of decrease
	No. Of Respondent	% of Respondents	No. Of Respondent	% of Respondents	
Woraiyur	700	6	160	11	77
Musiri	300	3	150	11	50
Manamedu	3000	27	300	7	90
Kodiyampalayam	7000	64	1000	71	86
Total	11000	100	1410	100	

Sources: Primary data

Reasons for shrunken looms

The weavers are getting only low rate of return for their work. They will get only get only Rs100 to Rs.200 per cotton sari and Rs.400 to 500 for silk sari. It will take nearly one week for finish one sari. Even though the demand is high the weavers not to interest to do the work as a full time job. They engage other remunerative jobs along with their main profession. They do not allow their younger generation to continue the profession. The youngsters are not aware their profession, pre loom process as well as weaving. The parents are not interested to teach their children about the technology and other tips which all are known by them.

Table 3 Problems faced by the weavers

Particulars	No. Of Respondent	% of Respondents
Non availability of Raw materials	13	13
Non availability of credit	11	11
Low Income	62	62
Technology up gradation	9	9
Wants to convert power looms	5	5
Total	100	100

Sources: Primary data

Problems faced by the weavers

- 1. Raw materials** A major difficulty of handloom weavers across the district is the non-availability of adequate quantities of good quality yarn at reasonable prices. The government took certain measures to deal with this problem.
- 2. Credit needs** The credit facilities currently available to weavers are far from adequate. Government schemes provide loan and other grants only for loom up-gradation and not for setting up a new loom.
- 3. Technology up gradation** In hand loom sector they follow only traditional methods and designs.

Remedial Measures

Some of the remedial measures could broadly be suggested as under

1. They must be oriented through some grass root level training programme towards betterment of their life. 100% of the weavers want to improve their life style, give education to their children and lead a peace life. The government should assure to some extend of income then they will come forward to do their work with full confident.
2. They must be oriented through training programme towards skills, knowledge and technology in order to ensure quality of product, improved efficiencies and enhanced productivity levels.

3. The weaving industry must develop collective market orientation.
4. A handloom sectors needs technology up gradation and they have to manufactures dress materials according to the demand of their customers.

Conclusion

Rising yarn prices, declining wage rates and shrinking markets push weavers in the traditional sectors to the brink of disaster. The Government of India has formulated a new scheme called Integrated Handloom Cluster Development Programme for the overall development of handloom sector. Under this scheme, assistance is being provided for various components such as up gradation, modification, purchase of looms and accessories, setting up of Dyeing Units, common facility centers, opening of showrooms, conducting of exhibitions/fairs, publicity, providing of design inputs etc. The maximum assistance for each cluster will be Rs.200.00 lakh. By way of implementation of this programme, the overall socio-economic status of the Handloom weavers of the clusters is expected to improve.

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DALIT WOMEN VILLAGE PANCHAYAT PRESIDENT: A COMPARATIVE ANALYSIS OF TIRUCHIRAPPALLI AND MADURAI REGION

Introduction

Under Rajeev Gandhi's panchayat reform, women have been given greater opportunities with larger representations in panchayat elections. By and large they contested on non-partition basis. In Panchayats as well as municipalities, women representatives established themselves with good reputation. There are even district wise and state-wide associations of women panchayat presidents enabling them to exchange their problems and exploring their further prosperities/possibilities for effective services.

Sampling Procedure:

For the purpose of the study, Madurai and Sivaganga from Southern district and Thiruchirappalli and Nagapattinam, districts were selected by using lot method. To select the individual respondents, it was decided to select 15 respondents from each district by using lot method. The sample size constitutes 60, which constitute around 10 per cent of total population of the study. Thus, stratified disproportionate random sampling technique was adopted to select the respondents in this study.

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Results and Discussions

TABLE 1
Problems faced by the respondents

VARIABLES		N	%		
1. Number of problems faced as women	No problems	1	1.7		
	1	12	20.0		
	2	5	8.3		
	3	4	6.7		
	4	2	3.3		
	5	21	35.0		
	6	13	21.7		
	7	2	3.3		
	Total	60	100.0		
	2. Level of problems	No Problems	1	1.7	
Low		21	35.0		
High		38	63.3		
Total		60	100.0		
3. No. of Problems faced as Dalit women	No Problems	14	23.3		
	1	15	25.0		
	2	12	20.0		
	3	6	10.0		
	4	9	15.0		
	5	3	5.0		
	6	1	1.7		
	Total	60	100.0		
4. Level of problems as a dalit women	No Problem	14	23.3		
	Low	27	45.0		
	High	19	31.7		
	Total	60	100.0		
As Women		No Problem	Low	High	Total
4.1. Region	Madurai Areas	1	11	18	30
		3.3%	36.7%	60.0%	100.0%
	Tiruchirappalli		10	20	30
			33.3%	66.7%	100.0%
	Total	1	21	38	60
		1.7%	35.0%	63.3%	100.0%
As Dalit Women		No Problem	Low	High	Total
4.1. Region	Madurai Areas		12	18	30
			40.0%	60.0%	100.0%
	Tiruchirappalli	14	15	1	30
		46.7%	50.0%	3.3%	100.0%
	Total	14	27	19	60
		23.3%	45.0%	31.7%	100.0%

Table 1 reveals that women in Tiruchirappalli district face more problems followed by Cuddalore, Kancheepuram and Sivaganga districts than other districts (Theni, Thiruvallur, Madurai). The Nagapattinam district shows the lowest level of problem. In Tiruchirappalli district they face many problem which are brought out in Table 8.8 below. In Trichy gender discrimination dominates.

Conclusion:

women in panchayat as heads and scheduled caste women in particular have to track a long distance to reach the Gandhian ideals of "Gram Swaraj" where there is absolutely no handicap and no obstacles, no obstruction due to the caste discrimination, gender discrimination and male domination. Statistically speaking on the whole dalit women village panchayat president's performance is graded at 'medium level' and definitely cannot be labeled as 'mediocre'.

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ECONOMICS OF AGRICULTURE DEVELOPMENT OF VALADY A VILLAGE IN TRICHIRAPPALLI DISTRICT

Introduction

Tiruchirappalli is known as The Rock Fort City of Tamil Nadu and it is located on the banks of the river Cauvery.

Objectives

The study has the following objectives :

1. To study the socio-economic conditions of agricultural people.
2. To find out the extent of their contribution to the family's income.
3. Situational analysis based on many work programmes show that women are engaged in primary sector comprising agriculture and animal husbandry etc.

Population :

The population of Valady in 2006 was 3622 comprising of 1758 males and 1864 females the total no.of houses in Valady are 850 the overall population in this village decreased gradually from 3802 in 1990 to 3622 in 2006. However the no.of houses increased from 649 in 1990 to 850 in 2006. Population of Valady has changed very little in the last 15 years. Urbanization plays a major role in the increase in the no.of houses in the village.

Name of the village	No of house hold	Total population	SC/ST	Literate		Total worker	
				Male	Female	Male	female
Valady	866	3580	—	2495	1356	990	470

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Occupation Pattern:

LANDLESS LABOUR	SMALL FARMER	MIDDLE FORMER	LARGE FARMER
0	0.2	2.5	<5
42%	2.8%	8%	1%

Valady has 42% Households with landless farmer. Small farmers (less than 2.5 acres of land) account for 28% of the villagers 8% of the farmers are medium (2.5 to 5 acres land) and 1 % of farmers are major farmers more than 5 Acres of land. 6% of villagers are engaged in fishing for their livelihood and 15 % of the population dependent on other occupation such as business, brick making etc.

4.Agriculture Production

SL.NO.	NAME	%
1	PADDY in Tonnes	74
2	BANNANA in Rupees	15
3	SUGARCANE in tonnes	11

DRY CROP

SL.NO.	DRY CROP	PERCENTAGE
1	TAMARIND	32
2	GINGER	16
3	COCONUT	2
4	CHAMPANGI	17
5	NEEM	18

Paddy is cultivated on 135 hectares (74% of the total cropped area) Banana account for 26 ha. (15% of the total cropped area). Sugarcane is cultivated on roughly 16 ha. (9% of the area under major crops) in Valady. It was collected from the Village administrative office, taluk office of Lalgudi.

5.Crop Area Details

SL.NO	As per adenoidal gosphara	Irrigated	Un -Irrigated	Total Area	
				Current fall	Last fall
1	Total area cultivated under all crops	300.919	156.995	457.917	324.140
2	Area cultivated under first crop	184.940	6.275	190.815	178.690
3	Area cultivated more than once	116.375	150.720	267.099	145.452

Detailed data on difference between irrigated and non-irrigated cultivated area.

6.Crop wise area details yield in Tonnes

Sl.No.	Crop details	irrigated	Un-irrigated	total	Last fasali	difference	%
1	Paddy Kuruvai-Kar	101.175	-	101.125	24.655	76	310
	Paddy Thaladi-samba	163.705	-	163.705	144.692	19	13
	Total	264.830	-	264.830	169.310	96.	56
2.	Black Gram		150.720	150.720	120.795	30	25
3.	Tamarind		3.125	3.125	3.125	0	
4.	Sugar Crops						
	1.Planted	2.955		2.955	8.955	-6	-67
	2.Ratoon	8.955		8.955	5.430	4	65
	Total	11.910		11.910	14.385	-2	-17

The household survey indicates the following with respect to use of fertilizers for different crops. All farmers cultivating paddy use synthetic fertilizer paddy 40% Sugar 80% of farmers growing Sugarcane reported a decrease in yield.

7. Crop-wise Area details

Sl.No.	Crop details	irrigated	Un-irrigated	total	Last fasali	difference	%
1	Non Food Crop	16.685	2.975	19.660	3.720	16	428
2	Food Crop	284.230	154.020	438.200	320.420	118	37
3	Food & Non Food Crop	300.915	156.995	457.940	324.140	134	41
4	Wet area cultivated	184.540	6.275	190.815	178.690	12	7
5	Area cultivated more than once	116.375	150.720	267.095	145.450	134	92

The above table is a consolidation report in Agriculture food crops and non – food crops in cultivated area of land.

REALITIES OF CO-OPTEX IN TIRUCHIRAPPALLI CITY DURING 2008-09.**INTRODUCTION**

Co-optex is the major climax handloom weavers' cooperative society in India promoting handloom industry and the interest of cooperative weavers on a commercially viable manner. Keeping pace with the changing taste of consumers, Co-optex has been introducing new products and new designs to increase the marketability of handloom products. For the purpose, Co-optex is in constant touch with the National Institute of Design, Bangalore, Weavers' Service Center, Chennai and the National Institute of Fashion Technology, Chennai etc., to develop new designs. Over the years, the Co-optex as an apex marketing society has shown promising performance and contributed to the socio-economic progress of its members. This was possible due to active participation of weavers, able leadership and sound management followed by Government assistance and with serious monitoring at the highest level.

Co-optex is the largest Apex Handloom Weavers' co-operative Society in India promoting handloom industry and the interest of co-operative weavers on a commercially viable manner. Its main functions are – supply of raw material (yarn), organization of production according to the needs and taste of market, procurement of stock from Handloom Weavers' Co-operative Societies and marketing of those products through its effective network of shops throughout the country. It also provides technical and financial help to the weavers.

Co-optex is the nodal agency for the following Government schemes:-

- Free Distribution of Saree and Dhoti Scheme during festivals.
- Free Distribution of Saree and Dhoti Scheme to Old Age Pensioners; and
- Free supply of uniform to school children through Adi-Dravidar Tribal Welfare, Backward Class, the Most Backward Classes and Social Welfare Departments.

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Co-optex exports a wide range of handloom products to many countries regularly. Currently, Co-optex goods are exported to various countries in Europe. The important export products are home textiles like terry towels, furnishing materials, bedspread, table cloth, lungies, shirting fabrics and kitchen coordinate.

During the year 2005-06, Co-optex has procured handloom and Powerloom goods worth Rs.315.11 crore from the Weavers' Co-operative Societies and sold them to Rs.420.70 crore which also include export sales of Rs. 3.27 crore.

During the year 2008-09, Co-optex procured handloom and Powerloom products, worth of Rs.375.52 crore from the Weavers Co-operative Societies of the State. Co-optex has achieved retail sale of Rs.153.78 crore including an export sale of Rs.3.49 crore during 2008-09, marking an improvement compared to the retail sale of Rs.131.02 crore during the year 2007-08.

Co-optex ensures continuous employment to the weavers by introducing a policy change from seasonal procurement to monthly procurement for its retail sales. The retail sale procurement has improved to Rs.95.46 crore during the year 2008-09, as compared to Rs.77.83 crore during the year 2007-08.

The introduction and adoption of various market friendly strategies by Co-optex has resulted in earning a record profit of Rs.12.35 crore during the year 2007-08. It is estimated that tentative net profit to be earned for 2008-09 will be Rs.12.50 crore after the completion of audit.

Market Exploration

- ❖ To achieve increase the Retail Sales, Co-optex has been conducting monthly exhibition at all important showrooms by displaying products suitable for a particular season, like winter and summer.
- ❖ Co-optex is also organizing Exhibition at a greater magnitude in all the important cities to attract the new and to retain the regular customers.
- ❖ During the year 2008-09, about 4 Exhibitions were conducted and a sale had been generated.

- ❖ To achieve effective inventory control and to improve the information system, showrooms of Co-optex were computerized.
- ❖ Co-optex showrooms have been modernized and air-conditioned.
- ❖ National Handloom Expo 2008 was organized in which the Handloom Weavers' Co-operative Societies all over the country participated and the sale was Rs.4.31 crore.
- ❖ National Handloom Expo was also organized during February - March 2009 in Chennai and the sales was to the tune of Rs.4.45 crore.

Conclusion

Co-optex to achieve a retail sale of Rs.170 crore during the year 2009-2010. Showroom wise product planning will be made with focus for each season well in advance. To evolve annual production plan which then will be converted into society wise production plan. This plan will be given to the societies in the beginning of the year enabling the societies to produce the required goods and make them available in time for retail sales at Co-optex showrooms. Programme monthly procurement on the basis of production plan to make payment to societies within 30 days time for the retail sales procurement. To improve the ambience of the showrooms, showrooms will be taken up for modernization. Improve the information system, computer system will be provided to Warehouses, Regional Offices and Head Office with local area network facilities to ensure day-to-day monitoring. Interact with IT companies to develop web based reporting system; and to create 2500 new designs utilizing the services of the freelance designers working at Co-ptex.

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ECONOMIC IMPACT OF INDUSTRIAL POLLUTION IN INDIA

INTRODUCTION

The industrial sector is one of the most dynamic sectors of the economy and plays an essential role in economic development and the alleviation of poverty. If environmental considerations are not effectively integrated into the design of industrial processes, the implications can be manifold industries, in general consume 37 per cent of the world's energy and emit 50 per cent of world's CO_2 , 90 per cent of world's SO₂ and nearly all of its toxic chemicals. Lately, however, the severity of some of the local impact of industry and the high cost of remediation industry is becoming an increasingly sensitive issue.

CONCEPT OF INDUSTRIAL POLLUTION

Pollution is also defined as the inclusion of bacteria, impurities and other undesirable particles in natural environment is called pollution and any undesirable changes in physical and chemical environment which are pugnacious for human being are called pollution these damages may be in air or water stream as both are included in environment. The substances which cause thus change are called pollutants.

INDUSTRIAL POLLUTION IN INDIA

Environmental pollution is a serious and growing issue in the industrialization and developing countries, both in rural and urban areas. The primary cause of air, water and noise, solid waste pollution is industrial activities particularly in production process mainly in urban areas. Industries keep sprouting literally any where and everywhere. The consequent damage to the environment and to the society could have been minimized or eliminated. Polluting industries have been growing in India.

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SUGGESTIONS

The industrial sector generally creates air, water, noise and solid pollution. Even though the roll of industrial sector is more important for the rapid economic development, but the industrial pollution control is must .so the following suggestions have been made to control the industrial pollution .many of the industries are functioning in rental and leased buildings for examples, rice mill units, crusher industries, leather tanneries and chemical industries run on basis of lease. In this situation, the pollution control board has imposed some conditions to these industries not to pollute the environment and to build the disposable tank and other protection facilities. These industries have not followed the policies. So, the government should be built common disposal facilities in these industries and protect the environment. The government has already built the common disposal facilities in some states but all areas are not covered. So, the government should be built in common disposal facilities in all sates .some industries have used traditional method of production. Due to environment is fully affected so the sate government and related organizations should uplift the technology and control environmental pollution. Must of the large engineering industries are function in the main city areas. They create noise pollution. So these industries can be shifted from main area to remote area.

CONCLUSION

'Health is wealth '—is known to every one. We, the society should create awareness on environmental protection to the youngsters, followers, those who are the industrial entrepreneurs. We should always highlight the "pros and cost" of environmental pollution. The government should provide subsidy for protecting environment industrial sector the performance of economy would grow successfully.

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URBAN INUNDATION & TECHNO ECONOMIC SOLUTION

INTRODUCTION

Water ! Water !! every where and no water to drink. This is a sarcastic criticism prevailing for long. What we have done to eradicate and improve this, is a billion dollar question. More over many water related issues like interlinking of rivers, flood management, drought mitigation and urban inundation are still a challenge to the Government. Tiruchirapalli which is located in the central part of Tamil Nadu is an important place on the banks of river Cauvery. Yet affected by urban inundation. This paper aims at the specific issue of urban inundation in Thillainagar area in Tiruchirapalli area and suggesting "win - win" economic solution. It has also got sustainable revenue generating techno economic feasibility.

GLOBAL WATER BALANCE

Water in the ocean is 97% and Water in polar ice is 2%. Out of the balance 1% of water half of it is in deep ground and cannot be tapped for human needs. It shall be noted that the surface water through rivers available is only 0.0002%, which means that water available for our need is 2 out of 10000. Very meager is it not?. The only source of water which maintains the global water balance is rain fall.

Unless we understand the vagaries of rainfall we cannot understand the issues of urban inundation and suitable suggestion cannot be evolved. Rain is the only source of water. 1200mm is the annual average rainfall of India. 945 mm is the annual average rainfall of Tamilnadu. The annual average rainfall of Trichirappalli district is 846mm. With this abundant quantum of rain fall the water management is very poor in India. Where as , Isrel, which receives less than 500 mm of annual average rainfall is doing wonderful task in water front.

Dr.R.Lalitha, Associate Professor in Commerce, & **S. Aruna**, Research Scholar;
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How many can be benefitted out of this?

Assume a house of 4 members 2 flushes a day of 10 liters each.

Total water requirement for a year = $365 \times 4 \times 2 \times 10 = 29200$ Liters

How many houses of 4 members can be benefitted = $5000000 / 29200 = 171$ houses

The 50 Lakh litres of water we saved can serve 171 houses for one year. If the same is extended to all the stretches we can save abundance of rain water which is giving, an inundation problem which the Government finds difficult to drain. The same could be a revenue generating resource. A one time investment provides continuous benefits to the public and Government need not spend any amount on this. Public Private Partnership (PPP) programmers are being encouraged and lot of projects is on the anvil. Lot of people will get employment opportunity in storing and distributing the precious rain water Any policy or scheme will sustain and successful when it has got three fold benefit.

Benefit of this project:

1. Costly, fresh treated drinking water is wasted now for flush purpose and for gardening purpose. Because of this scheme, this avoidable quantity is saved.
2. The pure water which is currently used for flush purpose may be diverted as drinking water to some other area who have not at all received any supply so far.
3. The urban people and commercial buildings may be forced to pay and get the semi treated water for flush purpose. The entire cost of the project can thus be recouped by fixing reasonable cost for the water supplied.

CONCLUSION

We have started purchasing water. It is priced more than that of the prize of milk. Unless we realize and start thinking and acting progressively that each and every drop of water that is falling in is a resource we will be falling acute shortage in days to come. A good political will and broad minded bureaucratic decision and awareness of public is required to implement this through Public Private Partnership. This is an economically sound and technically viable solution for urban inundation.

Technical Support: Er.K.Manuraj, Deputy Superintending Engineer, TNPWD, Trichy.

ECONOMY OF KARUR REGION**Introduction**

Karur District is located center along the Kaveri & Amaravathi rivers in Tamil Nadu India. The main town in Karur District is the city of Karur. It had a population of 935,686 as of 2001. It is 33.27% urbanized as per Census 2001. The district has a literacy of 81.74%. As per the Vedas the Brahma created the human's first in this Karur known as Karuvur. Karur famous for its International Home-Textiles & Bus body buildings. Karur is located between 11° 00' and 12° 00' North of Latitudes and between 77° 28' and 78° 50' East of Longitudes. It is spread over an area of 2,895.57 Sq. km. And the total population of the district is 9,35,686, out of which 4,65,538 are males and 4,70,148 are females.

Farmers of the district of Karur are mainly engaged in the cultivation of Rice. Other crops grown in the region are millets, cereals, pulses, sugarcane, groundnut, and cotton. The major industries of the region are paper, bus body building and cement industries. A very common cottage industry is handloom industry engaged in the export of bed sheets, towels, floor rugs, tea towels, napkins, aprons, kitchen towels, pot holders, bathmats, tea mats, curtains, quill covers, shower curtains etc. People from far off places come to visit the Pasupatheesvarar Temple at Karur, built by the chola kings in the 7th century.

Economy**Agriculture**

Utilization of land area in Karur district is up to 44.59%. 4.76% of the land area remains as other uncultivated land. 2.74% is forest area in Karur district. Black soil is the predominant soil type in this district accounting for 35.51% followed by laterite soil for 23.85%. The remaining 20.31% is sandy, coastal and alluvium soil. The main crops are paddy, banana, sugarcane, battle leaf, grams & pulses, tapioca, kora grass, groundnuts, oilseeds, tropical vegetables, garland flowers, and medicinal herbs.

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Home textiles

Karur is famous for its home textiles. Karur has a niche in five major product groups — bed linens, kitchen linens, toilet linens, table linens and wall hangings. Overall Karur generates around Rs.6000 crores in foreign exchange through direct and indirect exports. Allied industries like ginning and spinning mills, dyeing factories, weaving etc., employ around 300,000 people in and around Karur.

On the international textile map, Karur has become synonymous with hand-loom made-ups first as Tirupur in the hosiery product. The weaving industry came to Karur from Kerala and has earned a reputation for its high quality hand-loom products today. Hand-loom Exports from Karur began on a modest scale with just 15 exporters in 1975 and today Karur has 1000s of exporters and the products are supplied to world leading chain stores like WalMart, Target, IKEA, Ahlens etc.

The hand-loom products being exported have been broadly classified under three heads viz., kitchen, bathroom and bedroom furnishing items. Some of the hand-loom made-ups exported from Karur are Bedspreads, sheet sets, Towels, Floor rugs, Tea towels, Napkins, Aprons, Kitchen towels, Pot holders, Plate mats, Bathmats, Tea mats, Curtains, Pillow, Quilt covers, Shower curtains.

Karur textile exporters eye Rs 10000cr

The Karur Textile Manufacturer Exporters Association (KTMEA) is targeting to touch the Rs 10,000-crore mark in exports by 2010. Currently, the region exports textile worth Rs 3,500 crore. Speaking to Business Standard, R Murlidhar, CEO of the association, said they were confident of achieving the target. However, he expressed concern over the three major hurdles — poor infrastructure, labour laws and low productivity — that could hamper the robust export activities. Infrastructure facilities like better roads, sufficient water supply, proper sanitation and uninterrupted power supply had to be ensured for the industry to perform well. Outdated labour laws like the one which prevented women labourers from working during night shifts, needs to be amended, he added. The association has enlisted about 120 direct members, all of whom are into exports business.

Paper

TNPL is promoted by the Government of Tamil Nadu with loan assistance from the World Bank. Today TNPL is the largest producer of bagasse based paper in the world and the 2nd largest paper producer in Asia. TNPL produces 230,000 tons of Printing & writing paper and consumes 1 million tones of bagasse every year.

Bus Body Building Industry

Karur District is very famous for its Bus Body building industry. In and around Karur, there are several small and large industries catering the need within Tamil Nadu as also Outside the state. Karur is a renowned centre for bus building industries. This is a unique feature of Karur and almost 90% of south Indian bus bodies are being built here. The total business is estimated to be around Rs.250 crore per annum.

Cement

Karur is also home to Chettinad Cements. It has an installed production capacity of 600,000 tons per annum, with another 1.1 million tons expansion in the pipeline.

Nylon nets HDPE filament and associated product manufacturing. Its mainly for the fruit fields of Himalayas. Above 50% of nylon net in India is made here only.

Conclusion: The study has brought out a number of important aspects in the Karur Economy .Not only in one aspect, our Karur District is an all-rounder in developing the Indian Economy. It is concentrating on Export of Textiles, Agriculture , Banking Business, Cement Industries and Ultimately bus body Building. Our Tamil Nadu Newsprint and Papers Limited, has its vision as " to be the market leader in manufacture of world-class eco-friendly paper adopting innovative technologies for sustainable development"

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SRI PADDY CULTIVATION IN TIRUCHIRAPALLI DISTRICT**1. Settings**

India produced 93.1 mt of rice from 41.9 mha which spread over 90 per cent of its districts. However, 40 per cent of districts having the rice productivity of less than 1.5 t/ha need attention for increasing productivity further. Tamil Nadu, Rice is cultivated in 28 districts to the tune of 20.5 lakh hectares which producing 52 lakh tons during 2005-06. Tiruchirapalli district constitute 3.8 per cent of state area and producing 4.54 per cent of rice production with the average rice productivity of 2975 kg/ha which is four quintal higher than the state average (2546 kg/ha) rice productivity.

System of Rice Intensification (SRI) is an emerging paddy cultivation technique as a potential alternative to traditional way of flooded rice cultivation in the canal system and is showing great promise to address the problems of small amount of quality seeds, water scarcity and labour saving in nursery. In last few years, SRI method of rice cultivation has given a multidimensional support from different stake holders in the state for enhancing the state rice production. Now, the issue is how the farmers are responding to SRI over years? The sustainability of SRI method and its constraint in adopting various components of the SRI technology are not explored and documented well. In this context, it is proposed to study the adoption of SRI method of rice cultivation under farm size categories in Tiruchirapalli district. The specific objectives are; to evaluate the performance of SRI in Tiruchirapalli district; and to study the adoption levels covering 2-3 seasons under different irrigation.

2. SRI in rice cultivation

SRI is a neither a new variety nor a hybrid. It is only method of rice cultivation following certain modification in method of cultivation. Conceptually SRI method means, use 14 (produce by modified mat nursery method with reducing seed rate) days old seedling by square planting (22.5 X 22.5 cm spacing) in the main field. The higher spacing

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facilitate to aerating the soil and following the mechanical weeding by cono-weeder. SRI method has increased the number of productive tillers, panicle length, grain weight and ultimately to the grain yield. It saves the water maximum of 40 to 60 per cent in nursery and 20 per cent in main field. The SRI method increased the income which was contributed by reducing the cost of cultivation specially seed cost, nursery preparation, pulling out of seedlings and increased grain and straw yield and quality.

3. Data and methodology

Present study on SRI cultivation in Trichy district was the part of study funded by the International Water Management Institute (IWMI), Sri Lanka project on "Adoption level under different irrigation sources and farm size categorization in Tamil Nadu". The primary data were collected through well designed pretested questionnaire from each 25 SRI and 5 Non SRI farmers from two selected blocks in Trichy district. Based on the block wise coverage of SRI method (Collected from commissioner of Agriculture, Chennai), Pullambodi and Lalgudi blocks were selected purposively. Two or three villages were selected randomly which are widely adopting the SRI technology. All the rice cultivation details were collected in the farm survey which covers information on land ownership, resource endowments, cropping pattern, season variety, area, yield and price of the marginal product and by product besides, collectively the constraints of adoption various components of SRI.

4.1 Rice cultivation in Trichy district

SRI method was introduced in 2002 by the Tamil Nadu through various schemes and stakeholders. Many block demonstrations were implemented almost in all the taluks in Tamil Nadu. However, the continuity of adoption of SRI technology by farmer was dependent upon success rate, knowledge level of the technology and the additional yield realized over the conventional method of rice cultivation considering the socio economic constraints faced by the farmer. The present study explores adoption of SRI method in successive six seasons (*Kuruvai* 2007-08 to *samba* 2008-09). Rice cultivation largely adopted in *Kuruvai* and *Samba* seasons were considered in estimating the allocation of operational land to paddy cultivation, percentage of farmers followed SRI method of cultivation and additional yield obtained by the new

4.2 Sustainability of SRI method of Rice cultivation

SRI method of rice cultivation in *Kuruvai* was followed in 33 per cent of farmers in 07-08 which was increased to 47 per cent in 08-09 and nearly doubled to 86 per cent in 2009-10. This showed the progressive improvement in adoption of SRI method of rice cultivation particularly in *Kuruvai* season in Trichy in last three years. The *Kuruvai* rice area in 2008-09 utilized 61 per cent of paddy area which has increased to 87 per cent of The land area in 2009-10 under SRI method. This share was relatively high in marginal and small farmer indicated the more progressiveness in adopting SRI method of cultivation. The average SRI area was 4.00 acre in *kuruvai* 2008-09 which was reduce to 3.68 acre in 2009-10 in *Kuruvai* (Table 4). It is also confirmed from the Table 1 and 5, the per cent of farmers followed SRI method of cultivation was more in (87 per cent) in *kuruvai* season than samba season (54 per cent). This may due to less control over irrigation water was a major impediment to adoption the 'alternative wetting and drying' component of the SRI technology in main field besides in following the important components like young seedlings and square planting.

Table 1 SRI Kuruvai rice area and the percentage of farms under different farms size

Size(n)	2007-08			2008-09			2009-10		
	Area	area share	%farm to paddy farms	Area	area share	%farm to paddy farms	Area	area share	%farm to paddy farms
Marginal (8)				2	100	50.0	1.67	100	75.0
Small (19)				2.13	62.22	30.8	3.07	90.17	76.9
Large (33)	9.00	75.00	66.7	5.29	53.94	57.9	4.77	83.53	94.4
All (60)	9.00	75.00	33.3	4.16	61.31	47.2	3.90	87.39	85.7

Table 2 SRI Samba rice area and % of farms in under different farms size

Size (n)	2007-08			2008-09		
	SRI rice Area	SRI rice area share	% SRI farm in paddy farms	rice Area	SRI rice area share	% SRI farm in paddy farms
Marginal (8)				1.31	100	37.50
Small (19)	1.25	100	5.26	2.32	70	44.44
Large (33)	8.00	55	6.25	4.70	63	61.29
All (60)	5.75	70	5.08	3.68	68	53.57

4.3 Adoption of SRI components

The success in SRI methods of cultivation depends on intensity of adoption of different components of SRI technology. The three point scaling technique was used to measure the closeness to adoption of different components of technology. SRI suggests 5 kg per ac of seeds for nursery raised in modified mat nursery method in 40 square meter of nursery area. While in conventional method, farmers used 35- 40 kg/acre of seeds raised in 3 cents of nursery area and transplanted 35 -45 days old seedlings in 15 X 10 cm, or 15 X 15 cm spacing depending upon the duration of the crop. But, SRI method warrants, 14 days old seedlings planted in square plating (22.5 X 22.5 cm spacing) in wider spacing. Farmers practiced 2-3 times of manual hand weeding, same time used herbicides in controlling the weeds, while the SRI method followed mechanical method of weed control by specially designed rotary or cono-weeder at 2 times (15,30 DAT) in both sides for weed control. This is also helped in aerating the root zone of the paddy which facilitate in increasing the number of productive tillers per hill.

Depending upon the resource availability and constrains faced in adopting different components, farmers practiced either partial or complete adoption of technology. The intensity and level of adoption of different components of SRI method was estimated and the results were presented in Table 3.

Table 3. Intensity of adoption on different components of SRI method of rice cultivation

SIR components	Conventional method	Intensity of adoption of SRI (% farms)					
		full adopter		partial adopter		Non adopter	
		level	%	level	%	level	%
Nursery method	Flat bed	Mat		Raised bed		Normal	
Area (cents)	5 cents/ac	1 cents	36.00	2 cents	56.00	>3 cents	8.00
Seed (kg/ac)	35-40	5	68.00	5-15	30.00	>15	2.00
Age (days)	35-45 days	<15	70.00	15-20	28.00	>20	2.00
Square planning (cm)	15x10 or 15x 15cm	22.5x22.5	3.00	25x16-20	22.00	Row planting	75.00
Cono weeding	Manual	>2times	38.00	2 times	50.00	1 times	12.00

It could be inferred from the table that only 36 per cent of the farmers followed modified mat nursery method of rice seedlings production, while rest of the farmers were either increased the nursery area or just followed the conventional flat bed method of nursery preparation. Among the SRI farmers, more than two third of them used around 5 kg of seeds another 30 per cent followed less than 15 kg of seed in raising the nursery against the 35-40 kg/ac as seed rate in conventional method. Similarly, more than 70 per cent of the farmers using young seedlings (less than 15 days) another 28 per cent manage to transplant before 20 days. Only 3 per cent of the farms practiced square planting (22.5 X 22.5 cm spacing) and 22 per cent followed line planting (between line 25 cm), with higher spacing (between plants 16 – 20 cm). Three fourth of the farmers followed only line planting due to difficulty in getting skilled labour in following square planting with the young seedlings. Cono weeding is an important component of SRI but no one has followed both side Cono weeding. 38 per cent farmers practiced three times cono weeding one time with both side and another two times in one side

cono weeding 50 per cent followed two times with one side cono weeding. However, the effect of cono weeding was depends upon the quality of cono weeding time of operation, stage of the crop and efficiency of the labour. Farmers were opinioned that the increase in labour scarcity and decrease their efficiency warrants mechanized cono-weeder to suit their lands for successful practicing of cono-weeding concept in SRI rice cultivation.

5. Conclusion and policy recommendation

System of rice intensification (SRI) method of cultivation following difference practice such as young seedlings (14 days) at wider square planting (22.5 X22.5 cm) for an enable for cono weeding to aerate the soil. The continuation in SRI method cultivation and level of completeness in adoption of various components were responsible for achieving the additional yield over conventional method.

The present study revealed that around 60 per cent of SRI method farmers practiced the new technique in *Kuruvai* in about 88 per cent of their paddy area to the extend of 4-5 ac/season. The SRI method of rice cultivation was relatively more in *Kuruvai* season both in 2007-08 and 2008-09. This study confirmed the definite 10 per cent increase in yield and 42 per cent increase in net income over conventional method of rice cultivation by additional yield and saving cost in nursery and weeding. This method is most suitable in *Kuruvai* season considering the supplement source of irrigation availability.

Efforts may be taken to impart the skill on modified mat nursery seedling preparation, square planting of young seedling. Necessary arrangement may be taken to develop and supply the power operated cono weeder which is suitable to the Trichy soil for increase the use of cono weeding which lacking largely. The proper training and facilitation would further increase the adoption of SRI method of rice cultivation in Trichy and further increase the production to 10 -20 per cent with the current paddy area.

AREA, PRODUCTION AND PRODUCTIVITY OF FRUITS IN THIRUCHIRAPALLI DISTRICT

India has a large range of varieties of fruits in its basket and accounts for 10 per cent of world's total production. Mango, banana, citrus fruits, pine apple, papaya, guava, cheek, jackfruit, litchi and grape among the tropical and sub-tropical fruits. Apple, pear, peach, plum, apricot, almond and walnut are among temperate fruits and amla, ber, pomegranate, annona, fig, phalsa are among the arid zone fruits. India leads the world in the production of mango, banana, cheeku and acid lime and in productivity of grapes per unit land area. India is the largest producer of mango, banana, cheeku and acid lime. About 39 per cent of world's banana is produced in the country. In grapes, India has recorded the highest productivity per unit area in the world. Tamil Nadu is known for good many variety of fruits like mango, banana, grapes, pine apple, papaya etc. Fruits registered an increase of 8.0 per cent growth in the current years.

Methodology

The data for the present study was collected from various issues of Statistical Hand Book of Tamil Nadu relating to area, production and productivity of fruits for the period of 13 years i.e., (1995-96 to 2007-08). Trend line was fitted with the actual data by Method of Least Squares. The main objective of the study was to analyze area under cultivation, production and productivity of fruits in district Thiruchirapalli.

The area under, production and productivity of Total Fruits of Thiruchirapalli district was examined in Table 1. In case of total area under cultivation of fruits it was 18954 hectares during 1995-96 and it declined to 14306 hectares during 2007-08. The area under cultivation of total fruits was observed to be low during the year 1996-97 (11300 hectares). The production of total fruits from Thiruchirapalli district was 921877 tonnes during 1995-96 and it was reduced near of fifty per cent during 2007-08 i.e., 470320 tonnes.

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During the period of reference the production of fruits was observed to be below 4,00,000 tonnes during 1998-99, 1999-00, 2001-02 and 2003-04 of productivity, the yield was recorded as 48.63 tonnes per hectare during 1995-96 and it was reduced to 32.87 tonnes per hectare in 2007-08. It was observed from the table that the productivity was more than 45 tonnes during 1995-96 and 1996-97. The diagrammatical representation in Figure 1a, 1b, 1c reveals the declining trend of area, production and productivity of total fruits in Thiruchirapalli district.

Table. 1: Area, Production and Productivity of Total Fruits in Thiruchirapalli
During 1995-96 to 2007-08

Year	Area (Hectares)	Production (Tonnes)	Productivity (Tonnes / Hectare)
1995-96	18954	921877	48.63
1996-97	11300	513336	45.42
1997-98	12058	418761	34.72
1998-99	11823	370595	31.34
1999-00	11672	375749	32.19
2000-01	12606	426836	33.85
2001-02	12702	393686	30.99
2002-03	15220	530810	34.87
2003-04	12141	394125	32.46
2004-05	12740	419118	32.89
2005-06	13729	452580	32.96
2006-07	13756	452231	32.87
2007-08	14306	470320	32.87

Source : Statistical Hand Books of Tamil Nadu and Seasonal Crop Report – Various Issues

Conclusion

The above discussion highlighted that the total area, production and productivity for all the fruit crops in Thiruchirapalli district was slightly decreasing . The Crop-wise area, production and yield of fruits in this district was observed to be increasingly for certain fruits only.

GROWTH PERFORMANCE OF PADDY CROP IN TIRICHIRAPALLI DISTRICT

Introduction

In developing economies, Agriculture is the core sector providing a livelihood to a significant proportion of the population. Rice is the principal cereal crop grown in India and Tamilnadu. India ranks second in its production after china. Agricultural sector through its product contribution, factor contribution and market contribution might act as the leading sector for economic development.

The performance of agriculture need to be evaluated carefully with the help of the measurements of its growth and fluctuation.

The Joint Director of Agriculture has announced in Trichy on 26 April 2008 that the entire paddy coverage area of 61000 hectares in Tirucirapalli district during 2008 under the System of Rice Intensification (SRI). This technique is a boon to the farmers with respect to increasing productivity of paddy with less water requirement SRI is an attractive technique to small and marginal farmers due to its higher yield, the lower seed requirement and relative ease of weed management.

Objective of the study

The main objectives of the study are

- i. To study the growth rate of paddy for the period from 1999-2000 to 2007-2008.
- ii. To analyze the Compound Growth Rate (CGR) of paddy at Tamil Nadu state and Trichy District level with regard to area, production and yield over a time dimension from 1999-2000 to 2007-08.

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Methodology

The study covers a period of nine years from 1999-2000 to 2007-2008 with regard to area, production and yield of paddy in Tamilnadu and Tiruchirappalli District. The study trend in Growth Rate and Compound Growth rates regarding Area, production and yield of paddy were worked out by making use of an exponential function.

$$Y = a + b_t$$

$$\text{Log } y = a + b_t$$

a = constant

b = instantaneous growth rate

t = time period

The CGRs are calculated by the formula

$$\text{CGR} = [\text{Antilog } (b) - 1] \times 100$$

Scope of study

This study helps to know about underlying factors responsible for such performance of production possibilities in the near future. No doubt knowing the trends in the past a researcher can get an idea about the future performance of paddy in Trichy District. This study is largely based on secondary data pertains to the period of nine years only i.e from 1999-2000 to 2007-2008.

As per 2001 census the total population of Tiruchirappalli District is 2418366 which accounts for 1208534 of the male population and 1209832 of the female population. It is noteworthy to know about the total workforce by category wise. The following table:1 furnishes the occupational classification of population in Trichy District.

Table 1

Occupational classification of the population in Tiruchirapalli District

S.No	Nature of work	Lakhs	Percentage
1	Land cultivators	228497	5.70
2	Agricultural labour	284879	7.11
3	Household industries	27674	0.69
4	Marginal workers	34838	0.87
5	Other workers	328969	8.21
6	Non workers	2196473	54.83
7	Rural workers	601892	15.03
8	Urban workers	302965	7.56
		4006187	100

Source : Assistant Director of District statistical office Thiruchirapalli – 2001.

As per 2001 census the total workforce in Trichy district was, 4006187 lakhs cultivators and agricultural labours together constitute about 12.81 percent. The majority of the workers i.e. 54.83 percent is non-workers, i.e. engaged in other activities. The rural workers ranked second with the total work force which registers 15.03percent.

Land use pattern

An agro – economic study of any region develops a comprehensive understanding of agro-climatic conditions of area. In this respect, the land use pattern is given in the following table-2.

Table -2
Land use pattern in Tamilnadu and Thiruchirapalli 2007-2008

Category	Tamil Nadu Area in Hec	Percentage	Trichy Area in Hec	Percentage
Forest	2105818	16.20	36248	8.23
Barran and uncultivable land	492229	3.80	15732	3.57
Land put non Agricultural uses	2169195	16.60	74401	16.89
Cultivable waste	346889	2.70	12722	2.89
Permanent pastures and others grazing land	110127	0.80	5240	1.19
Miscellaneous tree crops and groves not included in the net area sown	261025	2.00	5917	1.34
Current follow	980723	7.50	42032	9.55
Others follow lands	1498720	11.50	63914	14.52
Net area sown	5061919	38.90	184179	41.82
Geographical area	13026645	100	440383	100
Area more than once	753255		17206	
Gross Area sown	5815174		201384	

Source seasmal crop report, Chennai – 6 2007-2008.

The table 2 shows extension of geographical area of both Tamil Nadu and Trichy District which accounted for 13026645 hectares and 440383 hectares respectively. The net area sown was 38.90 percent for Tamilnadu, and 41.82 percent for Trichy District respectively. The land put for non-agriculture uses ranked second that is 16.00 percent for Tamilnadu and Trichy District respectively.

Conclusion

There is a need to improve the production and yield of paddy in the light of the following suggestions.

1. There is a need to develop technology in general particularly System of Rice Intensification (SRI) method to increase the yield of paddy crop. In the recent years SRI method is intensively used
2. Farmers are to be sufficiently trained to adopt modern technology and they must be motivated to use this technique.
3. Credit institutions should offer credit at reasonable rate of interest with less procedural formalities.

To conclude it is necessary that agricultural techniques are to be developed to increase the productivity of paddy. Adequate infrastructural and credit facilities, proper training and motivation to farmers in the economic use methods will go a long way in increasing the productivity.

A STUDY ON WOMEN ENTREPRENEURS IN TIRUCHIRAPPALLI TOWN

Introduction

"The Indian women has established equality with men in all walks of life and will never return to her former status of a painted doll, child bearing Machine (or) a mere hanger – on"

- Mahatma Gandhi

"When women move forward, the family moves the villages moves" claimed Jawaharlal Nehru. It is recognized the world over that only when the women are in the mainstream of progress can any economic and social development be possible and meaningful. With the advent of mass media and so many awareness programmes women today are awoken to the new concepts of life and their changing roles in family and society. Women have started stepping out of the age-old conventions and now they perform shoulder to shoulder with men in almost every field.

Women entrepreneurship is the thrust area at present as the Government, banks and other agencies are out to serve this sector with the twin objectives of enhancing self employment opportunities in general and employment of women in particular.

The present paper aims to study the nature, motivational factors to become an entrepreneurs and the problems faced by them in course of their entrepreneurial pursuits. Because their role in the development of the family, society and in the nation is quite significant.

Objectives

- 1) To find out whether the sample respondents are first(or) second generation entrepreneurs.

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- 2) To analyse the socio-economic conditions of women entrepreneurs in the study area.
- 3) To highlight the obstacles and problems faced by women entrepreneurs.
- 4) Analysing the factors that help women to become entrepreneurs.

Methodology

This study is based on both primary and secondary data. Primary data will be collected from the 50 respondents in Tiruchirappalli town through the interview schedule. Secondary data is collected from the books, journals and other published materials.

The collected data will be presented in the following tables.

Educational Status of the Respondents

Educational status	No. of. respondents	%
High school	2	4
Higher secondary	21	42
Under graduate	23	46
Post Graduate	2	4
Technical	2	4
Total	50	100

Source: *Primary data*

The above table shows that 46% of the respondents are graduates and 42% of the respondents are studied upto higher secondary level. This helps them to do the work better compared to poorly qualified.

Motivation

Motivation	No. of. respondents	%
husband	14	28
Parents	6	12
Friends	11	22
Relatives	10	20
Society	5	10
Self	4	8
Total	50	100

Source: Primary data

The above table shows that majority of the respondents (28%) are motivated by their husband and 22% are by their friends, this reveals that the male domination, attitude of the men towards females have changed.

Nature of Business

Distribution of the respondents according to the Nature of Business

Nature	No. of. Respondents	%
Beauty parlour	25	50
Grinding flour	10	20
Tailoring	5	10
Mess	2	4
Selling of the sarees	5	10
STD Booth	3	6
Total	50	100

Source: Primary data

The above table shows that the nature of business started by the respondents break popular assumption that the women are fit only for the ventures of tailoring pickle making papad, Agarpathi making 50% of the respondents are engaged in beauty parlour due to less risk involved and more safety.

Investment
Level of initial Investment

Initial Investment	No. of. Respondents	%
Below 10,000	4	8
10,000-25,000	2	4
25,000-50,000	40	80
50,000- 1,00,000	-	-
Above 1,00,000	4	8
Total	50	100

Source: Primary data

The above table shows that only 4 respondents invested more than 1,00,000. It shows that the women did not want to take more risk by investing more.

Business performance

Business performance of the respondents

Profitability status	No. of. Respondents	%
Profitable	20	40
break-even	16	32
Unprofitable	14	28
Total	50	100

Source: Primary data

It can be understood from the above table that the respondents are equally divided between three categories (profitable, break-even, unprofitable) of business performance in terms of profitability. The third category said that they incurred losses in the first year of operation, but these women continued their business in spite of the initial losses.

Findings

- 1) Nearly 78% of the respondents belong to age group of 20-40
- 2) The study reveals that majority of the respondents belong to Hindu Religion and backward community.
- 3) 46% of the respondents are graduates and 42% of the respondents are studied up to higher secondary level.
- 4) 76% of the respondents are married.
- 5) 60% of the respondents live in nuclear family

Suggestions

- 1) The DIC should identify skilled women who did not take up any employment and motivate them to take up home based entrepreneurial activities related to their skills.
- 2) The banks should provide credit at reasonable interest without insisting on collateral security in the form of physical assets.
- 3) The government should design a suitable scheme to attract women towards entrepreneurship and to keep their enterprises to survive.
- 4) The success stories of several women entrepreneurs should be discussed among entrepreneurs to improve their business.

Conclusion

To conclude, women entrepreneurs play an emerging diverse role in terms of enterprise creation in India. If they are to continue to be a vibrant part of India's movement toward market economies more support in terms of infrastructure is needed. The government support needs to include more tax incentives, better credit conditions, advising and counselling centres and a strong banking and Insurance system. With these support system in place, women entrepreneurs will have an even greater impact on the economic development of India.

HORTICULTURAL CROPS IN THIRUCHIRAPALLI REGION

The Indian horticulture sector is facing severe constraints such as low crop productivity, limited irrigation facilities and underdeveloped infrastructure support like cold storages, markets, roads, transportation facilities, etc. There are heavy post-harvest and handling losses, resulting in low productivity per unit area and high cost of production. However, on the other hand, India's long growing-season, diverse soil and climatic conditions comprising several agro-ecological regions provide ample opportunity to grow a variety of horticulture crops. Thus, efforts are needed in the direction to capitalize on our strengths and remove constraints to meet the goal of moving towards a formidable horticultural growth in India. The foreign trade policy in 2004-09 emphasized the need to boost agricultural exports, growth and promotion of exports of horticultural products. Horticulture contributes nearly 28 percent of GDP in agriculture and 54 percent of export share in agriculture.

The importance of horticulture in improving the productivity of land, generating employment, improving economic conditions of the farmers and entrepreneurs, enhancing exports and, above all, providing nutritional security to the people, is widely acknowledged. Horticulture sector, which includes fruits, vegetables, spices, floriculture and coconut, among others, covered 17.2 million hectares of land in 2003-04, accounting for 8.5 percent of the gross cropped area of the country. Tamilnadu is the first state in India to start a separate mission for the development of horticulture.

It mainly focused on doubling the horticulture production in the state. To promote high density planting of mango and cashew cultivation, a sum of Rs.16.12 lakhs was sanctioned in the state. The area under horticultural crops like fruits, vegetables, spices and condiments, plantation crops and flowers had witnessed a declining trend in 2005-06 and 2006-07, mainly due to the drought situation that prevailed in the state during these years. This paper deals with area, production, productivity of vegetables, fruits, flowers and spices and condiments in one section, in the other part it deals with area, production and yield of horticultural crops in Thiruchirapalli district among various vegetables-wise, fruits-wise, flower-wise and spices and condiments-wise.

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In the Table-1 arrivals of various horticulture crops during different months was examined in the table. The arrival of Apple during the months of July to October, Banana March and June to November, Lemon January to April and June to December, Mosambi January, April, November to December, orange November to May, Grapes February to July, Mango, April to August, Papaya February to June, Pineapple August to October and January to February, Sapota February to June, Pomegranate February to August, Brinjal October to August, Cabbage October to February, Cauliflower November to February, Okra April to October, Onion October to May, Reas December to February, Tomato October to April and Potato December to April. The above mentioned indicated the arrival of fruits and vegetable at the Indian market during a year. There are certain crops whose arrival in the market are twice like lemon, Mosambi and Pineapple.

Table-1: Main Market Arrival Months

Crop	Months of Market Arrivals
Apple	July to October
Banana	March and June to November
Lemon	January to April, June to December
Mosambi	January, April, November to December
Orange	November to May
Grapes	February to July
Mango	April to August
Papaya	February to June
Pineapple	August to October, January to February
Sapota	February to June
Pomegranate	February to August
Brinjal	October to August
Cabbage	October to February
Okra	April to October
Onion	October to May
Peas	December to February
Tomato	October to April
Potato	December to April

Source: Indian Horticulture Database.

The role of horticulture in the livelihoods of resource poor farmers can be identified by such studies. The need for such studies is all the more warranted, showing resource poor farmers can be benefited. Studies like this would throw light on the potential of horticulture crops in the state and in a country. By which there is a great scope for increase in land utilization pattern, employment and export of agricultural commodities. Developing country like India has a great potential in horticulture cultivation.

Development of horticultural sector should be accompanied by the growth of the agro-processing industry. The opportunity exists to promote the industry by intensifying production of a required, appropriate variety of tomatoes, cucumbers, mangoes, pineapples, lemons, etc., for the products like ketchup, sauce, juice and pickles. Thus the production strategy should target not only meeting the domestic and export demand of fresh products but also of the processed products. There is the need to improve post-harvest operations related to handling, storage and marketing of fresh and processed produce. Volumes saved in post-harvest losses are actually the surpluses generated, without additional cost. The horticulture sector has an immense potential of generating employment. Additional employment can be generated by developing the horticulture-based agro processing units. This sector needs to be developed as an organized industry and has to be run collectively by all the stakeholders with farmers as entrepreneurs in the Thiruchirapalli District.

CHANGES IN THE CROPPING PATTERN IN THANJAVUR DISTRICT

Agriculture forms the backbone of the Indian economy. It contributes over 21 percent of India's national income. It provides basic necessities to millions of people. It also supplies raw materials to our premier industries.

Self - sufficiency in food grains has been one of the main objectives of planning in India. Agriculture occupies the pride place in the economy of Tamilnadu. Agricultural economy of the state has been dominated by rice. Paddy is a water intensive crop. Scarcity of water especially for the kuruvai crop has been acting as a damper on increased productions and productivity. In a situation of scarcity, the state has to aim at economizing the use of water to increase productivity per unit of water. This would necessitate a change from more water intensive to less water intensive crop.

With ever increasing population pressure on land is fast mounting. The efficient and judicious use of limited land has got to be made, in other words we have to find ways and means to realize better yield from the available land. So, there has been a growing concern in Tamilnadu over the need for bringing about a change in cropping pattern. The study attempts to analyse the changes in the cropping pattern in Thanjavur district.

Cropping pattern in general is taken to mean the distribution of average between different crops expressed as a percentage of the total cropped area.

To Arputharaj, cropping pattern is the proportion of area under different crops at a point of time. A change in cropping pattern implied a change in the proportion of area under different crop.

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Thanjavur district is well known for agricultural activities for centuries. The Cauvery river exhaust more than 90 percent of its water once upon a time in the delta. Due to the Cauvery dispute between Tamilnadu and Karnataka there is uncertain in the opening of Mettur dam in June every year. The farmers depend on groundwater. It changes the cropping pattern in Thanjavur district.

The other factors like soil, economic incentives, institutional factors, new technology etc are also responsible for the changes in the cropping pattern in Thanjavur district. The study analyses the changes in the cropping pattern during 2001 - 2007.

Table No.1

AREA UNDER FOOD CROP AND NON - FOOD CROP IN THANJAWR DISTRICT
(Area in Hectares)

Sl.No	CROPS	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
1	FOOD CROP	232933	170419	177625	205728	197205	209501
2	NON-FOOD CROP	38719	3396	39560	45726	44087	42592

SOURCE: Season and Crop Reports of Tamilnadu.

Table No.2

AREA UNDER PRINCIPAL CROPS IN THANJAWR DISTRICT

S. No	CROPS	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
1	Paddy	192161	139186	141280	160608	154901	164243
2	Cereals	220	203	203	899	543	768
3	Total cereals	192381	139389	141483	161507	155444	165011
4	Total pulses	20438	11294	15315	22469	16390	16957
5	Total foodgrains	212819	150683	157698	183976	171834	181968
6	Sugar crops	11590	11149	11231	11229	15602	18561
7	Cotton and fibre	1244	1066	1418	2238	785	319
8	Groundnut	6145	3566	6320	8217	7274	6236
9	Gingelly	4833	2876	4926	7243	5999	3856
10	Coconut	24833	23934	24116	24893	26287	28414

Source: Season and Crop Reports of Tamil Nadu.

Table No.3
PERCENTAGE CHANGE IN AREA UNDER FOOD CROP
AND NON - FOOD CROP

Year	Percent change in food crop From base year (2001 - 2002)	Percentage change in non food-crop from base year (2001-02)
2001- 02		
2002 - 03	-23	-12
2003 - 04	-23	+2
2004 - 05	-11.6	+18
2005 - 06	-15	+14
2006 - 07	-10	+10

The above table clearly depicts that the area under food crop is shrinking year by year whereas the cultivable land under non- food crop is increasing. The changes may be due to prices of crops, availability of water in time, cost of production, maintenance etc.

The study has used simple statistical tool namely correlation to study the relationship between area under cultivation for food crops, non-food crops and prices of food and non-food crops, and reveals high degree of positive correlation between these to variables ie, increase in the prices of crop increases the area under cultivation by the farmer.

CONCLUSION:

Human survival is possible only if sufficient food is available but if this level persist human survival will be in endangerable situation. The remedy to this problem is that the government should take necessary action to boost up area under food crop cultivation.

FINANCIAL INCLUSION THROUGH MICRO-FINANCE, AN EMPIRICAL ANALYSIS WITH SPECIAL REFERENCE TO TIRUCHIRAPPALLI DISTRICT, TAMIL NADU

INTRODUCTION

Amid the distressed news, enthusiasm is building about a set of unusual financial institutions prospering in distant corners of the country. The hope is that much poverty can be alleviated and the economic and social structures can be transformed fundamentally by providing financial services to low income households. These institutions united under the banner of 'microfinance' share a commitment to serving clients that have been excluded from the formal banking sector. According to National Sample Survey Organization's (NSSO), 59th Round (2003), only 48.6 % of the total number of cultivator households received credit from both formal and informal sources (financial inclusion in a broader sense) and remaining 51.4% did not receive any credit (total financial exclusion). In the same survey it is further revealed that 22% of the cultivator households received credit from informal sources (financial inclusion in narrow sense). Only 27.6% of the farmer households has availed credit from the formal institutions like banks, cooperatives and government. Further, a Rural Finance Access Survey 2003, conducted by the World Bank and NCAER, revealed that 79 % of the rural households has no access to credit from formal sources. Hence, the tasks of Self Help Groups are the promotion of greater financial inclusion and in the process improve the social and economic welfare of the poor.

In this backdrop, the paper examines the promise of Self Help Group in the inclusion (access) of excluded poor households. India, launched its pilot phase of the Self Help Group (SHG) Bank Linkage programme in February 1992. SHGs are small informal associations created for the purpose of enabling members to reap economic benefit out of mutual help, solidarity and joint responsibility. These small and homogeneous

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groups involved in savings and credit activities are capable of taking care of the risks through peer monitoring. The main activities are capable of taking care of the risks through peer monitoring. The main advantage to the banks of their links with the SHGs is externalization of a part of the work items of the credit cycle, viz., assessment of credit needs, appraisal disbursement supervision and repayment, reduction in the formal paper work involved and a consequent reduction in the transaction costs.

The SHG-Bank linkage programme in which SHGs are linked to banks in a gradual way-initially through savings and later through loan products- is considered to be an effective strategy to ensure financial inclusion in this backdrop, this study has been undertaken with the specific objective of analyzing the impact of financial inclusion through micro-finance.

The hypotheses formulated for the empirical verification through this study are;

1. Financial inclusion through micro-finance increased the flow of institutional credit to the vulnerable section,
2. There is association between the degree of financial inclusion and the participation in SHGs.

Methodology

The Study Area: The study is based on the primary data collected in Tiruchirappalli district of Tamil Nadu. Tiruchirappalli is located along the river Cauvery. Tiruchirappalli is located geographically in the North latitude between 77.45' to 78.56'. It covers an area of 4,403.83 sq.km. It has a maximum temperature of 40.2°C and a minimum of 15.6°C. It consists of eight taluks, Thuraiyur, Ialgudi, Manachanallur, Musiri, Srirangam, Tiruchirappalli, Manapparai and Thottiyam. Soil here is considered to be very fertile because of the river Cauvery flowing through the district. The Northern part of the district is rich in flora. Government agencies and many NGO's are promoting SHG's to face this challenge. The socio-economic environment of the district provides strong case for the purposeful selection of the district for this study.

Results and discussion

Primary data collected from 480 randomly selected rural households were analysed and the results are interpreted in this section. Post enumerative classification of those households into the households 'without SHG' and 'with SHG' was made. Distribution of the sample respondents across the different groups is summarized in table.

Table1: Distribution of Sample Respondents

Farm Size Category	Membership in SHG		Total
	Without SHG	With SHG	
Land Less Families	24	40	64
Marginal Farmers	52	76	128
Small Farmers	28	100	128
Medium Farmers	58	40	96
Large Farmers	40	24	64
Total	200	280	480

Arithmetic mean values of borrowing by the households without SHG and with SHG are given in table 2. Percentage share of institutional and non-institutional sources in the total borrowing of the respective farm size group was computed for both the groups of households. Percentage share of institutional sources in the total borrowing is more among the households with SHG compared to the households without SHG in all the farm size group but the difference is more among the land-less and marginal farm size group. It is generally believed that flow of institutional credit to vulnerable groups will increase with SHG-Bank linkage programme. For the empirical verification of this hypothesis 't' test was applied.

Table2: Association between Degree of Financial Inclusion and Membership in SHG's

Farm Size Group	Degree of Financial Inclusion				X ²
	Low 0-30	Medium 30-60	High 60-90	Total 0-90	
Land Less Families					
Without SHG	12	0	0	12	9.102
With SHG	8	12	9	20	
Total	20	12	0	32	
Marginal Farmers					
Without SHG	16	10	0	26	8.788
With SHG	14	24	0	38	
Total	30	34	0	64	
Small Farmers					
Without SHG	4	4	6	14	7.867
With SHG	2	22	26	50	
Total	6	26	32	64	
Medium Farmers					
Without SHG	6	8	14	28	2.597
With SHG	2	10	8	20	
Total	8	18	22	48	
Large Farmers					
Without SHG	2	8	10	20	3.840
With SHG	0	2	10	12	
Total	2	10	20	32	
Pooled					
Without SHG	80	60	60	200	15
With SHG	52	140	88	240	
Total	132	200	148	480	

A two way classification of the respondents based on their degree of financial inclusion and the membership in the SHG was made and the results are given in table 2. The Chi-square test was made to verify the significance of the association between the degree of financial inclusion and the membership in the SHG. Percentage of household reached the medium and high degree of financial inclusion increase with the size of the land holding. No household belonging to landless and marginal farm size category reached

the high degree of financial inclusion whereas 62.5% of large farmers reached the high degree of financial inclusion. In the overall farm size category 18.6, 50 and 31.4 percentage of households with SHG were in low, medium and high degree of financial inclusion while the corresponding values for the households without SHG were 40 and 30 each. The calculated chi-square value (15.378) was found to be statistically significant at 1 % probability level.

Conclusion

This study clearly shows that the financial inclusion through micro-finance has increased the flow of institutional credit to landless and marginal farm households and discouraged non-institutional borrowing through the thrift creation. Percentage of household which reached the medium and high degree of financial inclusion, increased with the size of the land holding. The percentage of households, which reached the higher degree of financial inclusion, is relatively more among SHG member households compared to non-member households. The chi-square results lead to the conclusion that the financial inclusion through micro-finance increased the degree of financial inclusion among landless, marginal and small farm size category.

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PRODUCTIVITY AND LABOUR USE EFFICIENCY OF PADDY CULTIVATION IN TRICHY DISTRICT

Introduction

The places of major areas of production of paddy in the state are Trichy, Thanjavour, Vellore, Kanchipuram, Salem, Erode and Cuddalore districts. Trichy district stands foremost in paddy cultivation. The district has an area of 35,108 hectares under paddy and it accounts for 35% of total area under paddy in Tamilnadu State. Its productivity of paddy is presently 135 bags (60kg) per hectare. It is being cultivated in Trichy district by the farmers from the time immemorial due to favorable climatic situations available in the track. Besides, the infrastructural facility available in this district has actually resulted in the specialization of the crop.

The methods adopted, the approach followed in the collection of the data and the tools used in the analysis are presented in this chapter. Trichy district is the foremost paddy growing areas of Tamil Nadu. So this district has been chosen for the study of the cost aspects of paddy cultivation and production aspects. Lalgudi and Manaparai Taluks are chosen for the study from among the predominantly paddy growing taluks in Trichy district.

Analysis of Labor Deployment and Productivity

To study the pattern of labour deployment in this paddy left, the categories viz., Family, Permanent and fixed labour was studied among these categories. The weak-up on men, women and juveniles were made. The methods of tabular and percentage analyses were adopted.

The paddy growers grouped under large, medium, small and productivity was studied using the formula:

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$$Y = b_0 + b_1$$

where

Y = yield

b_1 = land

b_0 = concept.

Production Function

The relationship between the yield and different inputs like seeds, fertilizer, and labour has been estimated through a multiple regression model. For the data collected, linear multiple regression was fitted and from the values of R^2 , it was observed that linear fitted the data well. In this production function model, the regression co-efficient would indicate the amount of change in yield due to one unit of change in the respective input, keeping all other inputs at their mean level. The standard error of the regression co-efficient was calculated and used to test the statistical significance of the Co-efficient by applying the 't' test.

The form of regression model used is:

$$Y = b_0 + b_1 + b_2 + b_3 + b_4$$

where

Y = output (in bags (60kg))

b_1 = Acreage

b_2 = Seeds (in Rupees)

b_3 = Manures and Fertilizers (in Rupees)

b_4 = Labour (in Rupees)

Productivity and Labour use Efficiency

To estimate the efficiency with the resources were put to use in paddy farming, production function approach was attempted with four variables identified to be influencing the output level. It was decided to try linear relationship between yield of paddy Y and inputs such as acreage (x_1), labour (x_2). The value of linear regression coefficient and related statistics estimated from the production function. The samples were considered for analysis of labour use efficiency.

Table-1 Labour use Efficiency of Paddy Farms

Group	Regression Coefficient		Standard Error		Coefficient of Determination R ²	Adjusted R ²
	Acreage	Labour	Seed	Manure & Fertilizer		
Marginal Farmers	1.371* (15.675)	0.036 (0.944)	0.375* (3.232)	0.883* (7.771)	0.986	0.984
Small Farmers	0.709* (3.920)	0.115 (1.696)	0.147 (0.981)	0.040 (0.625)	0.979	0.976
Medium Farmers	0.425* (3.092)	0.586 (1.046)	0.012 (0.064)	0.373* (2.311)	0.952	0.953
Large Farmers	0.231 (0.739)	1.380* (3.623)	0.043 (0.183)	0.283 (1.122)	0.959	0.095
Overall	0.894 (13.146)	0.189* (6.497)	0.015 (0.206)	0.304 (5.243)	0.992	0.991

The coefficients of manure and fertilizers and labour are -0.8833 and 0.0368 respectively and insignificant at one per cent level. It implies that neither the additional doses of manures and neither fertilizers nor further deployment of labour input would help to increase the yield significantly. The four independent variables chosen for investigation to get help to explain 89 per cent of variations in the yield.

The coefficient of acreage is 0.7091, it is significant at one percent level. If the area under cultivation is increased by one acre, the yield will be increase in 0.7091 tonns. The coefficient of seed manures and fertilisers, and that of labour is 0.1471, 0.0405 and 0.1155 respectively and they are insignificant. The implication is that additional doses of the inputs cited may not bring in significant increase in the yield. The study points out that bringing more land under cultivation is the only solution to increase the yield significantly. The four independent variables taken for investigation help to explain 98 per cent of variations in yield.

It is seen the coefficient of acreage, manures and fertilisers are 0.4254 and 0.3736 are significant at five per cent level. It is clear that if the area under cultivation is increased by one acre the yield will increase by 0.4254 ton. Also it is seen that if additional dosage of

manures and fertilizer input is added to the cultivation, the yield will go up by 0.3766 ton. The coefficient of seeds and labour input are 0.0128 and 0.5862 respectively. It is seen that planting of more seeds or induction of addition labour input may not help to increase the yield significantly. The four independent variables explain 95 per cent of the variation in the yield.

It is explains the coefficient of labour is 1.3807 and it is significant at one per cent level. If one unit increases the labour, the yield will increase by 1.3807 ton. The coefficients of acreage, seeds, manures and fertilizers are 0.2315, 0.0439 and 0.2837 respectively. All these variables are found to be insignificant. In this situation increasing the dosage of labour to some extent is the only way to increase the production. The four independent variables taken for investigation help to explain 95 percent of variation in the yield

The area under cultivation is increased by one acre, the yield will increased by 0.8942 ton. If the labour input is increased by one unit, the yield may go up by 0.1899 ton. There is indication that the existing quantum of application of fertilisers has already crossed the optimum level and any further application will reduce the output. The coefficient of seeds is 0.0155 and is insignificant at one per cent level. This phenomenon points out that planting larger quantity of seeds may not help to increase the yield significantly. The four independent variables considered for investigation help to explain 99 per cent variations in yield.

In general, acreage is the single significant variable for marginal, small and medium farmers. Also, it is seen that marginal farmers are found using more manures and fertilizers above the recommended level. It may decrease the yield significantly. Big farmers can increase the production to some extent, only by way of increasing the dosage of labour. For marginal farmers, besides acreage input seeds are another significant variable. For other categories of farmers seeds become insignificant. In the study area it was noticed that the marginal farmers plant more setts of paddy than the other groups of farmers. It is also seen that the marginal and small farmer's engage in gap filling of setts in a pronounced manner than the medium and large farmers. Therefore analysis of the resource efficiency that the large farmers can expand their output only by increasing the labour input is consistent with the reality in the survey area.

Considering the over all efficiency of paddy farmers, it is seen that acreage, manures and fertilizer and labour are found to be significant at one percent level. If the area under cultivation increased by one acre, the yield, *Ceteris Paribus* will increase by 0.8942 bags . the yield, there is indication that the quantum of application of fertilizers has already crossed the optimum level and any further application will reduce the output. The four independent variables together explain 99 percent of variation in the yield for the small, marginal and medium farmers, the acreage determines the additional yield for the large framers, labour input alone increase the yield. Trichy district is famous for Paddy cultivation for long years, therefore, the Government should take new methods of cultivation then only the productivity of paddy will increase. The Government should take yearly announcement of new price, it will increase the productivity of the paddy.

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A STUDY ON PROBLEMS OF AGRICULTURAL LABOURERS WITH SPECIAL REFERENCE TO THE AYYAMPATTI VILLAGE IN TIRUCHIRAPPALLI

INTRODUCTION

One of the most disquieting features of the rural economy of India has been the growth in the number of agricultural workers, cultivators and agricultural labourers-engaged in crop production. The phenomena of underemployment, under development and surplus population are all simultaneously manifested in the daily lives and livings of agricultural labourers. They get unusually low wages, conditions of work put an excessive burden on them and employment which they get is extremely irregular.

An equally significant feature is the overwhelming dependence on agriculture for livelihood in the rural areas. According to the 2001 census out of the total rural workers in the country, 73.3% were employed in agriculture. In all major states, from over one half to over three-fourths of the rural work force was employed in agriculture, the only exception being Kerala (28.7%).

The Objectives of the study are to:

1. To Highlight how many of them are having lands at Ayyampatti village in Trichy area.
2. To Analyse the employinent aspects of them in the study Area.
3. To study about their problems in the study Area.

Traditionally landless agricultural labourers occupy the lower rank of the ladder in the rural hierarchy where land and caste govern status, economic farm the most disadvantaged group, with typically low wages. The predominance of landlordism, low yield pre acre, subdivision, and Fragmented holdings, absence of scientific methods of cultivation, prevalence of burden some agricultural debt, lack of supplementary employment and absence of storage Facility which affecting lets of the agricultural labourers in general. The level of living which their earnings permit is very meager. They generally live from hand to mouth.

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FINDINGS

1. Most of the agricultural labourers are land less labour in the study area which constituted to 60 percentage.
2. The different wage system which are prevailed between men and women for the same nature of work doing.
3. An Average wage paid per day is in Rs. 135 and 65 for men and women agricultural labourers respectively in the study area.

PROBLEMS OF AGRICULTURAL LABOUR

- Lack of self-employment and additional employment is serious problems in the study area. Which constituted to 50% percentage.
- The cultivators having their grievances viz. The cultivation cost is expensive in the study area.
- Lack of storage and ware house facilities are in the study area as a result the grains are spoiled and eaten by ant and rodent.
- Few agriculturalist are feeling about water scarcity during summer season at the time difficult to cultivate paddy.

SUGGESTION

1. The Government and private sector should take necessary step in order to provide more self-employment and supplementary employment programmes in the study area.
2. The Government should take action whether the land ceiling act is properly implemented are not in the study area. Since majority of the labourers are landless in the study area.
3. The price of input is expensive so in order to control it the government should set up cooperative society through which all the inputs should, 1?e supplied in the study area.
4. Government should encourage to set up cottage and rural industries which help to provide supplementary employment for land less labourers in the study area.
5. The Nationalized bank come forward to give loan at very low rate of interest for the farming community and also ameliorate the borrowed amount especially for the land less labour and marginal farmers.

A STUDY ON ECONOMICS OF BANANA CULTIVATION WITH SPECIAL REFERENCE TO NANGAVARAM VILLAGE, KARUR DISTRICT

INTRODUCTION

Banana is considered as the fourth largest horticultural crop in the world with an estimated production of 64.6 million metric as of 2000. It is widely grown in countries in Africa, Asia, Europe, Oceania, Latin America, and the Caribbean (ISAAA, 2001). India is reported as the largest producer of banana, accounting for about 21% of total world production in 2000.

Banana one of the oldest fruits known to mankind is banana. It is a tropical fruit produced in 30 countries in the world. The origin of this tropical fruit could be traced to the pre-historic lines in China, India, Burma, Indo-China.

Banana is one of the most important major fruit most grown in India. In respect of area and production, it ranks second only to mango in this country. India Banana ranks next only to mango in area and production, occupying an area of about 83 lakh hectares with an annual production of 46.26 lakh tone. The important banana growing states are Maharashtra, Tamilnadu, Andhra Pradesh, Kerala, Karnataka, west Bengal Bihar and Gujarat.

The leaf is universally used as a plate for serving meals. The fruit is delicious and seedless in most places soft ripe banana is the first solid food given to babies. Unripe banana and the inner core of the pseudo stem are regularly used as vegetables.

The juice of pseudo stem is used in the manufacture of the dyes fiber is extracted from leaf sheath after harvest of the bunches is a good substitute for coir and other ropes. Unripe fruits are used for marking chips. Because of variety of uses banana finds a ready market all through the year and is a remunerative crop.

Banana is one of the oldest fruits of the world. The botanical name *Musaparakisiaca* is suggestive of its antiquity the Sanskrit name for banana is kodali legend goes that sages of India used to repose beneath the shade of banana tree and eat its fruits.

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Area, Production and Productivity

Bananas and plantains constitute a major staple food crop millions of people in developing countries. In 2005, India led the world in banana production, representing approximately 23% of the worldwide crop; this place of pride is achieved from within an area of 15% of the world harvested area under banana.

World and national level area harvested and production of banana is given below.

Country	Area Harvested ('000ha)					
	2000	2001	2002	2003	2004	2005
World	4,088.50	4,120.86	4,297.83	4,423.24	4,468.54	4,455.69
India	470.00	470.00	680.00	680.00	680.00	680.00
Production ('000 tonnes)						
World	64,552.37	66,120.11	69,098.50	70,619.60	72,653.44	74,236.89
India	14,140.00	14,210.00	16,820.00	16,820.00	16,820.00	16,820.00

Source : FAO Statistics Division 2006

OBJECTIVES:

The objectives of the study are

1. To find out the volume of production of banana in the study area. .
2. To find out the income and expenditure of banana cultivation.
3. To identify the optimum level of production in the cultivation.

METHODOLOGY

The study is pertaining to karur known for non-food crop cultivation. Of the total growers of banana, 30 banana growers were taken up for study. Simple random sampling method was applied to select the respondents.

VARIETIES

According to him there are varieties namely dessert banana and varieties suitable for marketing chips. There are several varieties likes poovan, Bontha, Dwarf Cavendish, Robusta, sated Velchi, Lalkela, Kunnam Aruit sagar, Chakraveli, gross Michel and gaint

governor. Her says that planting consists of several aspects namely selection of planting, preparation of land planting fertilizer application irrigation are important in banana cultivation. Her stresses the need for three doses of fertilizer application desiccating weed control are other important aspects in the cultivation.

BANANA TO NON-BANANA CROPS:

TABLE - 1

BANANA TO NON BANANA CULTIVATION

Proportion of Cultivation	Grand Average
Banana	44
Non Banana	56

It was found that the grand average of study came to be that 44 percent of the respondents were having chosen only banana crop alone. That is they are practicing specialized crop pattern. While 56 percent of the growers were having both banana as well as non-banana crop and they are having diversified crop pattern.

VARIETIES GROWN:

TABLE -2

VARIETIES GROWN AND ACRES CULTIVATED

Varieties	Acreage under cultivation
Karpooravali	44.00
Poovan	13.50
Rasthali	8.00
Ranipoovan	8.00

Of the various varieties grown in the study area namely, karpooravalli, Povan and Resthali, Rani poovan, karpooravalli comes under 44 acres. This might be due to the fact that the banana growers uniformly go for this kind on cost, profit

DISTRIBUTION CHANNELS OF BANANA:

TABLE -3
CHANNELS OF SALES DISTRIBUTION

Seller Distribution	No of Respondents
Wholesaler	27
Retailer	3
Both	5

It was found that 27 out of total respondents depend solely on the wholesalers for marketing their produce. Because they availed loan for growing banana and promised to sell only to them. Only 3 persons are having sold to any private parties and hence they get more profit from banana cultivation.

DETAILS OF COST CONSIDERATIONS:

TABLE -4
DETAILS OF COST (PER ACRE)

Cost of cultivation	Cost (Rs)
Preparatory cost	35470
Cost of manure	22330
Plant protection	8650
Total	66450

The per acre cost for the two years are calculated. Of the costs involved in cultivation of banana preparatory cost stood first; cost of manure comes next and plant protection cost comes last. This is because preparatory cost is basic and necessary one.

REVENUE, COST AND PROFIT DETAILS:

TABLE- 5 REVENUE COST AND PROFIT (PER ACRE)

Per acre	Amount
Total revenue	101250
Total cost	66450
Profit	34800

The per acre profit for banana cultivation roughly two years was calculated as Rs. 34,800, So, a banana grower can reap Rs. 50000 per year from banana cultivation that's why this crop looks attractive and many people in the study area come and choose this crop.

SUGGESTIONS

- 1) The farmers are to be provided warehousing and storage facilities for their produces till the price in the market shoots up.
- 2) As water is scarcely available in the study area efforts may be taken to initiate water conservation management techniques namely, drip irrigation, sprinkler irrigation at a concessional rates and the training are also to be given for the banana growers.
- 3) Elimination of market intermediaries through regulations in market and efforts to run local marketing centers help the farmers in reducing cost effectively.
- 4) It is suggested that starting banana powder making factory to commercialize banana cultivation operations.
- 5) The effective implementation of insurance for crop failure especially banana would help motivate the banana growers from uncertainties.

CONCLUSION

In the light of above discussion as to the economics of banana cultivation, it may be concluded that the availability of water is the most serious problem to be attended to still commercialize agriculture. The crop protection techniques may be made known to the banana growers in the study area that help them to prevent the losses in their course. Unless and until, nature co-operates with human efforts fruitful results will not occur. The debt burdens of the growers are discernible in the study and measures have to be taken to promote the well being of the banana growers.

Reference : **FAO Statistics Division 2006**

ECONOMY OF TIRUCHIRAPPALLI REGION

Tiruchirappalli is known for its central location in the state of Tamil Nadu and a major engineering hub and energy equipment and fabrication centre of India. BHEL – Bharat Heavy Electricals Limited, Ordinance factory and other wind power accessories manufacturing units run by the private sector enterprises are located in and around the city. A number of small scale industries have also sprung up in Tiruchirappalli. Leather tanneries are located on the way to Pudukottai. Viralimalai, considered as an industrial suburb has many factories. Mannachanallur has numerous rice mills supplying polished rice all over Tamil Nadu and outside. In recent years, the economy of the city is driven to a certain extent by IT / ITES companies encouraged by the support from the state government. IT major, Infosys is eyeing Tiruchirappalli for its expansion. While looking at the opportunities available for the district, resource based industries and demand based industries are suitable for the Tiruchirappalli region. Compared to State level average of industrial density (3.2), it is only 2.2 for Tiruchirappalli district. Considering resource availability its potential is much below. It seems that entrepreneurial spirit in the region is lacking and hence an attempt is made to study the region from the point of view of emerging entrepreneurial scene.



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ECONOMY OF TIRUCHIRAPPATTI REGION

Peer Reviewed Journal

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Dr. K. Rajamohan, Dr. K. Rajamohan, Dr. K. Rajamohan

**AN OVERVIEW OF THE IRRIGATION POTENTIAL AND
ITS IMPACT ON THE AGRICULTURAL SCENARIO OF
TIRUCHIRAPPALLI DISTRICT.**

Tiruchirappalli district is one of the very important districts in Agriculture. The river Cauvery basin provides copious flow of sub soil water to the reparians. The Tiruchirappalli district is endowed with canals, small rivers, the inadequate and untimely flow of water from river Cauvery makes the lives of peasants precarious. The tributaries of the river Cauvery catering to the needs of the sprawling districts also face uncertainties in getting water. Agriculture is the major occupation of the people in the district is confronting numerous problems related to quantum and quality of water. The insufficient flow of water from river Cauvery and uncertain monsoon pose a great danger to the irrigation potential of the district. The weakening irrigation potential has led to a sever downfall in the production and productivity of various crops in the district. The total volume of area under irrigation and the net sown area are stagnant in the district. This state of affairs has serious ripercussions on the millions of peasants whose livelihood are depending upon agriculture. This paper attempts to demystify the irrigation potential of the district and its close nexus with agricultural production.

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Table -1

Irrigation Source

S.No	Details	Length/No	Area Irrigated in Hectares	
			Net	Gross
1	Major rivers-Canals (Delta)	440/98	51012	60940
2	Small rivers-Canals	54/37	3025	3883
3	Lakes & Tanks	1767	20422	21144
4	Open wells	63177	45013	51668
5	Tube-wells	2329	4294	4891
6	Bore-wells	45	102	117
7	Filter points	605	511	746
Subsidiary Irrigation Sources				
1	Tube-wells	132	613	863
2	Filter points	1144	1362	1570
3	Open wells	5440	1886	3184

The above table 1 shows the most important source of irrigation in the district is canal, closely followed by open wells. Lakes and tanks also provide irrigation to the vast stretches of land. Tube wells and bore wells contribute only a meager proportion to the total irrigation. All the major rivers are only tributaries of river Cauvery. The insufficient flow of water and absence of perennial availability of water in the river Cauvery make the other major river dry. This actually contributes distribution of irrigation potential in the district. The sub soil water availability is also sporadic and uneven. The water table varies widely among regions as well as within the region.

The rain fall from south-west monsoon and north-east monsoon in the district is usually normal. The delayed monsoon brings uncertainty in the cropping pattern. Farmers are forced to switch over to short duration crops and manavari crops to tackle the problem of delayed monsoon and this is the major reason for the stagnant nature of net sown area in the district.

The following table 2 shows the district wise contribution to net area sown during the year 2007-2008

Table – 2
District contribution to Net Area Sown

S.No	District	% of net area sown to		S.No	District	% of net area sown to	
		Geographical area	State total			Geographical area	State total
1	Chennai	0	0.0	16	Perambalur	57.1	4.2
2	Kancheepuram	29.0	2.5	17	Pudukittai	32.5	3.0
3	Thiruvallur	32.6	2.2	18	Thanjavur	57.5	3.9
4	Cuddalore	58.8	4.3	19	Thiruvarur	72.0	3.0
5	Villupuram	46.4	6.6	20	Nagapattinam	56.7	3.0
6	Vellore	33.3	3.9	21	Madurai	37.9	2.8
7	Thiruvannamalai	35.6	4.4	22	Theni	34.7	2.2
8	Salem	39.2	4.0	23	Dindigul	37.7	4.7
9	Namakkal	47.4	3.1	24	Ramanathapuram	45.8	3.7
10	Dharmapuri	35.2	3.1	25	Virudhunagar	30.6	2.6
11	Krishnagiri	34.7	3.5	26	Sivagangai	26.8	2.2
12	Coimbatore	41.1	6.1	27	Tirunelveli	24.5	3.2
13	Erode	35.6	5.7	28	Thoothukudi	37.3	3.5
14	Tiruchirappalli	39.6	3.4	29	The Nilgiris	30.5	1.5
15	Karur	33.4	1.9	30	Kanyakumari	47.8	1.6
STATE						38.9	100

From the table 2 one can depict that the net area sown in Tiruchirappalli district is only 39.6 per cent slightly higher than the state average of 38.9 per cent, whereas Nagapattinam and Thiruvarur district had 56.7 per cent and 72.0 per cent respectively.

Table – 3
Cropping Intensity

S.No	District	Cropping Intensity	S.No	District	Cropping Intensity
1	Chennai	-	16	Perambalur	1.054
2	Kancheepuram	1.066	17	Pudukittai	1.006
3	Thiruvallur	1.185	18	Thanjavur	1.435
4	Cuddalore	1.343	19	Thiruvarur	1.743
5	Villupuram	1.117	20	Nagapattinam	1.832
6	Vellore	1.125	21	Madurai	1.065
7	Thiruvannamalai	1.227	22	Theni	1.067
8	Salem	1.070	23	Dindigul	1.038
9	Namakkal	1.154	24	Ramanathapuram	1.000
10	Dharmapuri	1.139	25	Virudhunagar	1.036
11	Krishnagiri	1.049	26	Sivagangai	1.001
12	Coimbatore	1.046	27	Tirunelveli	1.173
13	Erode	1.063	28	Thoothukudi	1.030
14	Tiruchirappalli	1.102	29	The Nilgiris	1.000
15	Karur	1.034	30	Kanyakumari	1.138
				STATE	1.149

The cropping intensity which is a crucial indicator of agricultural progress is 1.102 in Tiruchirappalli district as against the state average of 1.149. It is highest in Nagapattinam district with 1.832 followed by Thiruvarur district with 1.743.

And the irrigation potential in Tiruchirappalli district is hampered by the lack of large reservoir and it has only one big reservoir, Ponnaniyar. The district largely depends on wells to irrigate land. The well irrigation constitutes 57.6 per cent to all sources in the district. This over reliance had led to the depletion of water table and poses a threat to sustainability of farming. The Tiruchirappalli district occupies only 3.4 per cent to the state in the over all area under paddy cultivation which has much lower than Nagapattinam(8.6%), Thiruvavur(8.5%) and Thanjavur(8.4%) districts.

Conclusion:

The overall impact of irrigation on agriculture in Tiruchirappalli is alarming and need urgent corrective measures. Concerted effort in water use efficiency, appropriate cropping pattern, proper maintenance of water bodies and greater participation of Water User Associations will enhance the irrigation potential and mitigate the agrarian crisis of the Tiruchirappalli district.

Reference:

Season and Crop Report Tamil Nadu 2007-08 (Fasil - 1417) Department of Economics and Statistics Chennai.

WOMEN CONSTRUCTION WORKERS AT DEVARAYAN PETTAI VILLAGE IN THANJAVUR DISTRICT

S.No	TYPES OF WORKS	NO.OF RESPONDENT
1	Breaking stone	50
2	Digging stone	50
3	Motor mixing	50
4	Carrying load	50

WOMEN AND WORK

Introduction

Women form an integral part of the Indian workforce. According to the information provided by the Registrar General of India, the work participation rate for women was 25.68 per cent in 2001. This is an improvement from 22.73 per cent in 1991 and 19.67 per cent in 1981. The two important aspects that require mention are that while there has been an improvement in the work participation rate of women, it continues to be substantially less in comparison to the work participation rate of men. In 2001, the work participation rate for women in rural areas was 30.98 per cent, as compared to 11.55 per cent in the urban areas. In the rural areas, women are mainly involved as cultivators and agricultural laborers.

Objective

- ❖ To study the working pattern of women construction workers.

The below table explains that all the samples (50 respondents) doing all different types of construction work mentioned below

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S.NO	DETAILS	NO.OF RESPONDENTS	PERCENTAGE
1	Wage discrimination	23	46
2	Male domination	10	20
3	Heavy work	10	20
4	Ill treatment	07	14
	Total	50	100

Source: primary data

The below table explains that 46% of the respondents said that wage discrimination is the main problem. 30% of the respondents said heavy work remaining 14% said that they all ill treated in their work.

REFERENCE

- ❖ Yojana, march 1-15, 1990.
- ❖ Yojana, december 16-31, 1990.
- ❖ Kisan world, december 20, 2007.

WOMEN SANITARY WORKERS IN NAGAPATTINAM TOWN: AN ANALYSIS.

Rationale:

Provision of clean drinking water, sanitation and a clean environment are vital to improve the health of our people and to reduce incidence of diseases and deaths. Women and girls spend hours for fetching water and that drudgery should be unnecessary. Drudgery is undesirable in itself and it also takes away other opportunities for self-development. Lack of covered toilets nearby imposes a severe hardship on women and girls. Also provision of clean drinking water without at the same time of provision for sanitation and clean environment would be less effective in improving health. The two should be treated together as complementary needs.

In India 63% of the urban population has got access to sewerage and sanitation facilities (47% from sewer and 53% from low cost sanitation) as on 31-03-2004. As a consequences, open defecation is prevalent widely in rural areas but also significantly in urban areas too.

The major issues in urban sanitation are how to expand sewerage and sanitation facility to cover all the people in all cities and towns, how to find resources to do that; how to create awareness about the importance of sanitation and SWM; how to prepare and execute plans that keep up with growing population; and how to finance the O & M costs of the facilities created.

In the Tenth plan, the central government and the respective state / UT governments allotted for against a target of 10.85 crore individual household toilets. The toilets reported completed is about 2.89 crore up to January 2007. in addition about 3.12 lakh school

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toilets, 8900 sanitary complex for women. The Eleventh five year plan targets to complete 7.29 crore individual toilets for achieving universal sanitation coverage in the rural areas.

The programme for assisting the states in providing the various types of sanitation would continue. "The Nirmal Gram Puraskar" has brought a sea change in the attitudes of the community and it is promoting a healthy competition among the Panchayats for achieving total sanitation. The focus on school sanitation need to continue in additions. Solid waste management in village is the next focus area.

"Gram Panchayats, blocks and district that achieve 100% sanitation coverage in terms of 100% sanitation coverage of individual households, 100% school sanitation coverage, making the village, block and district free from open defecation and with clean environment (Planning Commission Document, 2008).

Objectives

The present study mainly attempts

- To analyse the socio-economic status of women sanitary workers.
- To study the problems of women sanitary workers in the study area.
- To suggest measures to improve the status of the women sanitary workers of the study area.

Methodology of the study

The study attempts to analyse the women sanitary workers in Nagapattinam town. There are 60 sample respondents selected from the study area. The present study has been based on primary data which were collected from the selected respondents through interview schedule.

Social profile of the members

This study attempts to analyse the social profile of women sanitary workers. It is found from the study that all the respondents are belonging to ST community, with regard to the educational status, majority i.e about 73.33% are illiterates and 26.67 % are primary

educated. With regard to the marital status 80% are married and 6.67% are unmarried, 60% of the respondents reside with nuclear family and 40% are in the joint family system. It is also found that more than 53.33% of the respondents live in thatched houses and 46.67 live in small tiled houses.

TABLE 1: MONTHLY INCOME DISTRIBUTION OF THE RESPONDENTS

S. No.	Monthly Income (in Rs.)	No. of respondents	Percentage
1	2000 to 3000	12	20
2.	3001 to 4000	16	26.67
3.	4001 to 5000	22	36.67
4.	Above 5000	10	16.67
Total		60	100

Source: Primary data.

The table 1 reveals that the income classification of the selected sanitary workers. In the present study, 12 (20%) respondents earn Rs. 2000 to Rs. 3000, 16 (26.67%) respondents earn Rs. 3001 to Rs. 4000, 22 (36.67%) respondents earn Rs. 4001 to Rs. 5000 and 10 (16.67) respondents earn above Rs. 5000 monthly. From this it could be observed that only 16.67% of the respondents earn more than Rs. 5000 per month and nearly 50% of the sanitary workers earn less than Rs. 4000 per month. Though they are considered as organized workers their income is not found satisfactory.

TABLE 2 : PROBLEMS OF THE SAMPLE RESPONDENTS

S. No.	Problems	No. of respondents	Percentage
1	Personal	10	16.67
2.	Social	18	30
3.	Economical	50	83.33
4.	Political	24	40
5.	Family	6	10

Source: Primary data.

With regard to the analyse the incidence of problems faced by the sample respondents both internally and externally, the enquiry was made and based on their responses the problems were categorized as personal problems, family problems, economic problems, social problems and political problems. The personal problems include the health problems and illness; The family problems includes non co-operation of family members tourchur and unrest over the family members attitudes; economic problems include low income lack of consumption absence of investment savings incidence of indebtedness; social problems include social exclusion and discrimination; and political problems include undue interference of local politicians. From the observation it is found that majority of the respondents that is 83.33% face the economic problems, and 30% of the respondent face the social problems, 16.67% of the respondents face the health problems 40% of the respondents suffer from political problem and only 10% of the women sanitary workers suffer from the family problems. From this it could be observed that the incidence of economic and social problems are more compared to other problems.

Conclusion:

Government programs, which are the main mechanisms to reach the women. are having limited impact particularly with regard to solid waste. For many years the development police. Neglected to focus on the specific needs of women. Even when policy began to focus on women. In different implementation of programs created a certain inertia and apathy among the clients that prevented them from responding from programs since they are not used to participate in development interventions. It is suggested that the reward/pay for the invaluable services of the sanitary workers should be periodically revised to sustain their life. It is also suggested that special rationing may be given at concessional rate. Special form of social welfare and social assistants schemes including medical facilities and leaves concessions etc may also be given. The role of NGOs in addressing in the problems of solid waste is very significant in recent years. Many NGOs are successful in developing appropriate styles and strategies towards women's issues.

TOURIST PLACES IN THANJAVUR**Introduction:**

Thanjavur has been the capital of mighty Cholas for centuries. Therefore it is only natural that the city has remained the focal point of cultural movement and activities in the peninsular India. The Cholas have been known as the patrons of magnificent art culture and that is why Tanjore has a lot of attractions to see and appreciate. India is earning maximum foreign exchange from tourism. In the credit of thanjavur there are many places tourist like.

The Palace

The Palace of Tanjore stands near the Brihadeswara temple. The Palace is a huge building that has been built through many decades. Nayaks initiated the foundation and primary work of construction around 1550 AD. The Marathas later completed the building during the reign of Peshwas.

Art Gallery

The Art Gallery is situated in the Thanjavur Palace only. The place is a must visit in Tanjore as it houses some of the most magnificent and precious Granite and Bronze statues of the Chola period.

Schwartz Church

Schwartz Church is a living example of religious tolerance of Cholas. Rajah Serfoji built the Church that stands in the Thanjavur Palace garden in the year 1779 AD in token of his affection for the C. V. Schwartz who belonged to the Danish Mission. The architecture is a welcome break from the Chola temple architecture that dominates the city of Tanjore.

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Sharja Madi

Sharja Madi is the Royal balcony in the Thanjavur Palace. Located in the eastern part of the palace complex, Sharja Madi offers a panoramic view of Thanjavur city to the visitors. The balcony has been decorated with wooden carvings and sculptures that are unique in Peninsular India.

Mariamman Temple (Punnai Nallur)

Mariamman Temple that is popularly called Punnai Nallur in Thanjavur is located just 6 kilometers off to the downtown Tanjore. This magnificent temple is dedicated to Goddess Mariamman. The place attracts hordes of foreign as well as domestic tourists.

Sri Brihadeswara Temple

Rajaraja Cholan, the Great Chola king built The Bragatheeswarar (Peruvudaiyar) Temple, also known as Big Temple. "In the twenty-fifth year of Rajaraja Cholan (A.D 1009-10) on the 257th day of the year the king handed over the copper pot for the finial at the top of the Vimana". It weighed about 235 lbs., and was overlaid with gold plate of weight of 292.5 Kalanju or nearly 35 lbs.

Rajarajeswaram, as the temple was named by its founder, fills a large portion of the small fort (Sivaganga Fort), encircled by moat on the east and west, the Grand Anaicut Channel (Putharu) on the south and by the Sivaganga Garden on the north. The temple entrance has an imposing gateway on the east, on either sides of which stand two small shrines dedicated to Ganapathi and Murugan and further through there is another Gopuram 90 feet high. This way leads into an outer court. A second and magnificent Gopuram further leads into the main court in which the temple is built. The inner court is about 500 feet long and 250 feet broad, is well paved with brick and stone. The court is surrounded on all sides by a cloister. The western and northern wings have Sivalingams consecrated therein and there are paintings over these walls depicting sixty-four Nayanmars, sacred sport of Siva. The outer measurement of the temple is 793 feet by 397 feet.

Royal Museum

A remarkable collection of South Indian sculptures and paintings is housed in the old palace buildings at Thanjavur (Tanjore). Thanjavur has been an art centre of great importance throughout almost the entire history of Tamil Nadu. During the Chola period, two magnificent temples were built in this region, the Brihadeswara Temple and the Gangaikondacholapuram Temple (10th to 11th centuries). Today, the town is a flourishing centre for bronze sculpture, stonework and paintings. The palace was originally built by the Nayak rulers of Tamil Nadu. It was this dynasty that added to and enlarged many of the temples, with ornate and often huge sculptures. The palace building, set within a large compound, also contains the Saraswati Library and the Sangeetha Sabha, or Music Hall.

Shivaganga Tank

The quadrangular Shivaganga Fort, Southwest of the old City, was built by the nayakaruler, Sevappa Nayaka, in the mid-16th century. Its battle mented stone walls, which enclose an area of 14 ha (35 acres) are surrounded by a partly rock cut moat. The Square **Shivaganga Tank** in the fort was excavated to provide drinking water for the City. The fort also contains The great Brihadishvara Temple, Schwartz Church, and public amusement park.

Saraswati Mahal Library

This library has one of the most important oriental manuscript collections, in India. Established around 1700 AD, the library contains a collection of over 44,000 palm leaf, and paper manuscripts in Indian and European languages. Over eighty percent of its manuscripts are in sanskrit, many on palm leaves and are very unique. The Tamil work includes treatises on medicine, and commentaries on works from the Sangam period.

Conclusion:

Recently because of us financial crisis tourism department shows a downsizing which has decreased the foreign exchange. But government should take all action to protect tourism.

THE IMPACT OF POVERTY ALLEVIATION PROGRAMMES ON THE RURAL POOR IN THANJAVUR DISTRICT.

Poverty is an age old social evil that is prevalent in Indian society. One third of Indian population suffers from poverty and especially the people of rural areas. People of rural and remote parts of India, are deprived of even fulfilling their very basic necessities.

Taking this into consideration, the government has taken various measure to uplift the condition of the rural folks. One of the prime aims of Indian government, is the rural development. Rural areas means not only the village and surrounding farm areas, but also the rural town ranging from population of two or three thousands to many thousands which serve as marketing centres for peasants and lenders labour of the countryside. India being a nation of villages, the rural development is inevitable for the progress of the nation. As Gandhiji rightly pointed out, "India lives in her villages" we need to take proper steps to improve quality of living in villages. While this quality of living goes up, naturally the standard of India rises.

The purpose of rural development

To William R. Lassey the rural development should focus on :

- ☐ Preservation of ecology integrity with a view to providing continuing supply of life supporting resources.
- ☐ Efficient and proper use of land.
- ☐ Healthy living conditions
- ☐ Aesthetically pleasing environment.
- ☐ Effective social economic, and government institutions.
- ☐ Improvement human welfare in terms of minimal economic and social evil.

Objectives :

- 1) To assess the impact of poverty alleviation programmes on the rural poor.
- 2) To analyse the magnitude of benefits derived from the poverty alleviation programmes with reference to employment, income and reduction of poverty among the rural poor.

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- 3) To find out the socio-economic factors inhibiting the people in availing the poverty alleviation programmers.
- 4) To suggest policy measures to the government for effective implementation of government programmes.

Methodology

Primary data will be collected through questionnaire, interview and group discussion from respondents through random sampling technique. The secondary data on the status of poverty and the poverty alleviation. Programmes in rouge are to be obtained.

Area of the study :

Thanjavur district is centrally located in Tamil Nadu with an area of 337657 hectares. The District has 3 revenue divisions Thanjavur, Pattukottai and Kumbakonam. The District is further divided into 8 of revenue taluks for the revenue administration. The district is further divided into 14 blocks for the development of administration. There are 22 tour Panchayats, 3 Municipalities, 906 villages with 489 village panchayats for local administration.

The river Cauvery originates from Mercara, in Coorg district and flows through Thanjavur Tamilnadu and reaches the Bay of Bengal at Poompuhar, the ancient city seat of the holy Tamil culture and Tradition.

Paddy cultivation in the fields commences in the district on the set of the monsoon and the abundant water irrigates the kuruva crop which is the major money crop for a considerable section of the farming community.

At times, these alleviation programmes are getting delayed to reach out its goal. Despite of these kind of problems the programmes are really useful to villagers in various ways. By preserving the natural resources of the villages, it increases the economic ratio of the nation.

The strategy of execution of these programmes must continue, in the same way, because it encourages the Self help Groups of women. This encouragement comes through the SHG's distribution of funds in Block, Taluk, District and state levels.

Being an agrarian district the improvement of small scale industries provide many employment opportunities to the beginners who aspire for agrobased entrepreneurship. This has to be welcomed and encouraged.

FINANCING OF SMALL SCALE INDUSTRIES

The development of small scale industries to great extent depends upon a number of inputs like finance, labour, technology and managerial efficiency. The non-availability of timely and adequate finance acts as a severe restraining factor.

The industry and bank finance is the lifeblood of any sort of business, trade, commerce or industry. An enterprise engaged in industrial production requires a great deal of finance depending on its size and capacity. In a small scale industries unit the need for finance need very essential largely due to its limited sources and difficult procedure. There is also an acute shortage of credit available in this sector. Money is the main element in starting any business to providing financial infrastructure essential factor in the process of development banks are not merely money distributing agencies but they also help in bringing about total transformation of the economic system.

Commercial banks have played a significant role in supporting the SSI movement in India. They have continuously been evolving special schemes and approaches to suit the rapidly growth and changing needs of the sector. The total value of credit by public sector banks exhibited an increasing trend. It was Rs. 31,542 crore in 1996-07 and Rs. 48,445 crore in 2000-01 and finally stood at Rs.67,639 crore in 2004-05. Private sector banks also play an important role in financing the SSI sector. Their contribution increased from Rs 4754 crore in 1996-97 to Rs 8668 crore in 2004-05. Of this background, this paper argues that how to mobilize, the fund to establishment of this enterprises and create employment potentialities and also extent to analyze the problems to getting the financial assistance from the banks in Tiruchirappalli District.

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ECONOMICS OF HANDLOOM WEAVERS OF URAIYUR IN TIRUCHIRAPPALLI

Handloom industry has always found a place of pride in our economy. India's Handloom industry which has a long tradition of excellence and unrivalled craftsmanship is spread throughout the country and the rhythm of the looms can be heard in all most all the villages.

Handloom, being a traditional rural and semi-urban cottage industry is highly labour intensive family occupation in which all the members of a family can work. The hand loom industry ranked next to agriculture in employing the largest number of persons. The handloom industry not only caters to the clothing needs of the masses but also generates substantial surplus for export earning Foreign Exchange for the nation.

This industry has its own characteristics in matters of capital and labour and remains a potential source of employment to villagers and people in semi-urban areas who are mostly unskilled/semi-skilled. Another feature of the industry is that it absorbs into its fold all types of people irrespective of caste, creed and religion and thereby promotes a sense of integrity and diversity.

SIGNIFICANCE OF THE STUDY

This study aims at the following factor such as to find out what extent they earn what are the different areas of problems faced by them their living and working conditions.

To find out the solutions to the problems in order to improve the living and working conditions of the weavers.

The handloom industry is a vital part of our industries development. Because it earns foreign exchange through exports of cotton cloths, saree's etc. Now-a-days the handloom industry is supported both by the State and Central Government.

Many of the middle class family desire to buy cotton cloths as well.

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Therefore the Investigator is very enthusiastic to study the problems and prospects of handloom weavers in Uraiyur with objectives

1. To know about the present working conditions of the handloom weavers in Uraiyur.
2. To study the problems related to the weavers in marketing their product and to suggest suitable measures for the betterment of the handloom industry.
3. To study the organizational structure, production and marketing of the weavers.
4. To find out whether any expansion or further growth of the handloom industry would be possible and also feasible.

HYPOTHESES OF THE STUDY

1. To handloom weavers are getting very low wages.
2. The handloom industry requires large amount of labour force to produce some amount of goods i.e., the labour output ratio is very small.
3. Most of the weavers are in low level of educational status.
4. Most of the weavers in these areas are meeting their expenditure through borrowing. They are getting loans from the weavers' society.
5. The weavers finished the product and gave it to the society getting only wage. But the society selling the cloth with 12% rate of profit.

METHODOLOGY

This study being an empirical one, the field Survey Method and Personal interview techniques were used for the collection of the required data. Investigator used the random sampling method. Without any bias (or) prejudice. It refers to the sampling technique in which each and every items of the population is given an equal chance of being included in the sample, selection of items in the sample depends on chance. And this study is mainly based on primary data. The study confines only with the handloom weavers residing at Uraiyur in Tiruchirappalli.

RESULT AND DISCUSSION

1. The Handloom Weavers Are Getting Very Low Wage

The above hypothesis is tested with the help of the collected data.

The Government of Tamil Nadu fixed basic pay of Rs.170.60 per pavu in the beginning of 1987. At the same time it reduces the supply of raw-materials to the weavers. But in practice Rs.120-130 is given according to the variety of saree by the society.

So, they are receiving wages for below the wages fixed by the Government.

2. Most of the Weavers are in Low Level of Educational Status

The above Hypotheses tested through percentage method.

Form the above table it is clear that there are significance difference in educational level between Handloom weavers.

From the interview the investigator came to know that the most of male workers getting only elementary education and most of the female are illiterate. So, this hypothesis is also proved.

3. Most of the Weavers Getting Loans form the Weavers Society

All workers linked with weavers Society most of the weavers in this area are meeting their expenditure through borrowing. They are getting loans from the weaver's society.

So, that we accept the Hypothesis.

FINDINGS

1. In the weavers colony (Poja Rajan Colony and Pudu Street) Weavers are the members of the Uraiyr Handloom weavers Co-operative Society.
2. Majority of the people have received basis education
3. There are mainly affected by the wage rate. From the interview it is clear that the Government fixed basis pay of Rs. 170 – 160 per pavu in the beginning of 1987. But at the same time it reduces the supply of yarn. Now in practice Rs. 120 – 130 is given per pavu according to the variety of saree by the society. So, they are receiving wages fixed by the Government.
4. They are having membership in the society so that they can get bonus every year.
5. The Handloom weavers in the study area, the investigator find that, the majority of the weavers are having single loom which is 68% and are weavers having one loom which is above 32% weavers are having two and above.

WOMEN'S HIGHER EDUCATION IN TIRUCHIRAPPALLI

**EDUCATION IS THE MANIFESTATION OF PERFECTION WHICH IS
ALREADY PRESENT IN MAN.** **- Swamy Vivekananda**

Education has been looked upon as the most and crucial investment in human development. No country has succeeded without educating its people. Education is the key to sustaining growth and reducing poverty. In this context, it is worthwhile to know the commitment of the World Bank to achieve the goal of education for all. The Bank has fulfilled its EFA commitments made in Jomtein in 1990 and subsequently, in Beijing in 1995. The records of the bank showed that the lending for education had doubled from \$918.7 million to an average of \$1.9 billion a year. The Bank had also increased the percentage of lending devoted to basic education, from 27 to 44 percent. The Bank had set up a programme to target 31 countries with populations over 4 million where the gender gap was greatest and had increased lending for girl's education to an average of \$860 million per year. The support of the bank combined with that of other agencies and government themselves, had helped produce significant progress in raising the number of children in school, especially girls, in many countries.

IMPORTANCE OF EDUCATION FOR WOMEN

Teach a man and you have taught only one, but teach a woman and you have taught a family goes a famous saying. There is a lot of truth in this saying. A woman influences every member of the family in her role as mother. This powerful influence on the part of the women has existed since ancient times.

WOMEN EDUCATION IN MODERN TIMES

The arguments of women's higher education in modern times centre on human resource development, economic returns, and gender equality and women's empowerment. Women graduates must be seen as part of the human resource base of a country. More than two million women are enrolled for higher education in India today.

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SUGGESTION

1. Handloom industry is one of the largest cottage industries in India. Even then they do not have sufficient basis facilities. As regards health, the researcher suggest that the Government should take steps to start separate hospitals for the weavers also like the ESI Hospital for the Industries workers.
2. The consumer on their part, should become more and more handloom conscious, and buy their entire requirements of cloth from handlooms and thereby help to improve the economic lot of the handloom weavers.
3. The both Central and State Government are should maintaining Reservation System, i.e. giving importance to Handloom Sector.

CONCLUSION

This survey helped me to known the problem and prespects of handloom weavers at Uraiur, Trichy District.

In this study areas, both colony and pudu street weavers are the members of the Uraiur Handloom weavers Co-operative Society, they get raw-materials from the society but the wages paid to the weavers is poor. Sometimes the raw-materials supply is reduced due to glut in the market.

From the analysis of data, the Handloom weavers living condition i.e., Annual Income weavers belongs to the middle income group i.e., income is between Rs.2,400 – 3,600 per annum.

On the other hand, the working condition of Handloom weavers also far satisfactory. Because their main occupation is handloom weaving, in this industries the member of looms and equipment is less compared to the number of Labourers involved in this work.

The society is providing the Marketing facilities. So, that they are not much affected by marketing problem.

This Handloom Industries will flourish or expand when the Government takes measures like providing loan facility. Proper supply of raw-materials, maintaining the price of input, purchasing on the spot or through society, fixing remunerative wage to the weaver and concessions handloom weavers. If these steps are vigorously taken by the Government then the Handloom Industries can reach the pinnacle of glory in its development.

STATEMENT OF THE PROBLEM

Generally female literacy rate is much lesser than that of the males. Due to lack of proper education of women in many areas, there is female infanticide and as a result, male population is more than female population. The ratio of females to males varies from region to region from rural areas to urban areas and also with reference to various age groups. These differences are reflected in the field of education also. The purpose of the present study is to evaluate whether such the differences exist in higher levels of education in Tiruchirapalli

OBJECTIVES OF THE STUDY

1. To analyze the pattern of enrolment of students in higher education in Tiruchirapalli during 1996-97 to 2006-07.
2. To analyze the trends in Higher education of women in rural areas in Tiruchirapalli from 1996-97 to 2006-07.
3. To study the demand for higher education in rural areas in Tiruchirapalli.
4. To identify the determinants of education for rural women in Tiruchirapalli

REVIEW OF RELATED LITERATURE

Review of related literature is an important aspect of any research work. It helps a researcher to understand the earlier works in the same field. It helps to identify the short comings of the studies and enables the researcher to find out areas which have not been touched by the earlier researchers and also help in overcoming the problem of duplication of research. Hence, this chapter is devoted to review a few of related literature and concepts with reference to the study. Many researchers have made attempts to study the various aspects of women in general while a few of them have made particular studies relating to women's education, women's higher education, barrier to women education etc. The present study has grouped the collected reviews under the following categories.

HIGHER EDUCATION IN INDIA

In the post-independence period, higher education has expanded fast, and it is mostly public in nature. Today, India ranks very high in terms of the size of the network of higher education institutions, with 6.75 million students enrolled. The teaching force

numbers about 3, 21,000. Student enrolment increased from 2, 63,000 to 67, 55,000 by 1996 – 1997. It grew at an estimated rate of 7 percent between 1987 and 1993 but has now declined to 5.5 percent compound rate of growth, with 14 states (out of 23 states and 1 union territory in India which have Universities) having a lower rate. In spite of this relevant age group (17 - 23) population.

The number of students per 1, 00,000 population had increased significantly since independence. It was only 48 per 1, 00,000 in 1951 increasing to 613 per 1, 00,000 in 1997.

Women

WOMEN HIGHER EDUCATION IN INDIA

There are today 214 Universities and equivalent institutions. The total number of universities include six open universities – one central university and five state universities – all run by the government.

They also include four universities exclusively meant for women, while all other institutions are open to both males and females. There is no university exclusively for males. Similarly, there are nearly a thousand colleges in the country which give admission exclusively to women students.

EDUCATION IN TAMIL NADU

Education leads to many social benefits, including improvements in standards of hygiene, reduction in infant mortality rates, decline in population growth rates, increase in labour productivity, rise in civic consciousness, greater political empowerment and democratization and an improved sense of national unity. The literacy rate of Tamil Nadu (62.66), in 1991 was higher than the national average (52.21%), ranking third in the country, behind Kerala (90%) and Maharashtra (65%), In 1994, it had reached to (63.72%) with a (74.88%) male literacy rate and a (52.29%) female literacy rate. And as per NSSO survey 1998.

Description about Tiruchirapalli as an Education Centre

Tiruchirapalli district is a prominent centre of education in Tamil Nadu of par with Chennai, Coimbatore and Madurai. The chola courts at Uraiyur and jayakondacholapuram had assemblages of learned courtiers, elder scholars and poets. Sirirangam temple which

lies on the banks of river Kaveri had many religious philosophers, who were propagated "Vedas" and "Prabandhms". The famous Rockfort temple also served as a Jain Monastery, where the Jain teachers and philosophers stayed and spread education. It should also be mentioned that besides many poets, scholars and grammarians. Thayumanavar, a Tamil sage of renowned learning, began his teaching with Tiruchirappalli as his headquarters. So it is clear that since remote past Tiruchirappalli serves as a glorious centre of learning.

ANALYSIS AND DISCUSSION

A brief analysis of the data collection forms the primary and secondary sources. The data collected from various sources have been classified and tabulated. This analysis deals with discussion in tune with the objectives and hypothesis framed for the study. This enables the investigator to understand the various aspects of the study.

"Higher education under pinning to democratic evil societies an engine of economic growth and policy instruments for the advancement of individual mobility and social justice". Educations are important for quality of human resources development of skills.

A country's economic performance depends critically on access to and the adoption of new technology and improving the skills of labour force. However in spite of the universally recognized importance higher education almost every where in best with financial crisis in varying education degrees the investment in higher education is expansive for household as well as for the government. Keeping this situation the present analysis the course wise enrolment in the higher education in Tiruchirapalli.

CONCLUSION

Equal opportunity in all aspects of education is essential to enable women to make their full contribution to society and to resolve the multiple problems confronting humanity. When women are caught in a situation of social isolation and lack of access to knowledge and information, they are alienated from decision-making process with in the family, community and society in general and have little control over their bodies and lives. For poor women, the sheer business of survival becomes an obstacle to education. Educational process should therefore address the constraints that prevent women's access to intellectual resources and empower women to become fully active as partners in social transformation.

THE EXTENT OF EDUCATED UNEMPLOYMENT IN PONNAGAR AT TIRUCHIRAPPALLI

The relationship between education and unemployment, although theoretically clear out, has rarely been qualified. Individuals who are well educated earn more throughout the year than those who are not. Therefore it seems likely that they will do better in other aspects as well. In particular they will be less prone to unemployment. "It is widely known that unemployment rates are inversely related to the educational attainment levels of workers. To the extent that unemployment represents a constraint on choice, as opposed to an element of it and to the extent that additional schooling is responsible for real reduction in those constraints, educational investments have an impact more than the income received from an hour spent at work.

STATEMENT OF THE PROBLEM

The situation of unemployment educated is more thus happy. It is so realized by both the affected and the policy makers. And, unemployment of the educated is found in all parts of the country and Tamil Nadu State is no exception.

Since it is the avowed aim of a social-welfare oriented Government to improve the situation in this regard, it is but meet that we get to know facts on a micro level as well in any chosen areas so that policy – framing could be realistic as well as scientific. Only that could have the way for a speedier solution to the problem, in torn extracting for economic development appropriate service from all educated and trained man – power.

OBJECTIVES OF THE STUDY

In general the aim of this study is to investigates the extent and causes of educated unemployment in ponnagar at Tiruchirappalli

1. To find out the extent and nature of unemployment
2. To find out the average period of unemployment among the educated
3. To analyze the cost of job-search among the unemployment and,

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4. To study the causes for educated unemployment, and, suggest suitable remedies for the problems.

HYPOTHESES TO BE TESTED

From a pilot survey conducted, in this areas contacting many educated unemployment persons, three hypotheses were framed for testing through final survey, they are:

1. There is correlation between education and employment
2. Level of Education is positively correlated with cost of job-search
3. The period of unemployment is greater for females than for males.

In this paper study of the extent of educated unemployment in Ponnagar at Tiruchirappalli, the aim is to find out the extent, nature and, causes of educated unemployment. For that matter as study on survey methods was undertaken. Based on the findings of the survey the problem of educated unemployment has been analyzed

It is found from this study that there are a large number of unemployment of matriculates and graduates remaining unemployment. Besides, nearly 45 % of the educated females remain unemployed. The period of unemployment is greater for persons with lower educational level and smaller for persons with higher educational level. The average period of unemployment is greater for females than for males among the unemployment.

The salary expectations of the unemployed are greater for persons with higher educational levels than for persons with lower educational levels. Again the average salary expected by a male is greater than that expected by a female. This is ascribed to the limited scope of employment opportunities for females and their hesitation to go to distant places to get a job.

It is revealed from the study that most of the unemployment persons prefer a job in government organizations rather than in private organizations. Most of the educated unemployment belong to the backward community followed by the forward communities, and the scheduled caste and scheduled Tribes. The age and period of unemployment have also been analyses, and, it is found that unemployment is greater at lower age level and smaller at higher age level.

As the cost of job – search is a major aspect in the study educated unemployment, it is found that the level of education is positively correlated with the cost of job – search.

It is found in this study that the cost involved in getting a job for an employed person is significant, and, hence, they need unemployment “dole” for their affective job search process.

It is understood from the survey that the main reasons for the unemployment of the educated people are lack of employment opportunities, reservation of jobs on the basis of community, and corruption and political interferences.

Nearly 56 % of the educated unemployment prefers self – employment if necessary facilities are provided. The non – preference for self – employment by others is mainly due to lack of finance, lack of skills and experience, and lack of guidance.

In order to break the negative affiliation between education and employment, and have to impart training to the students along with their general education.

Our three hypotheses stand proved between there is negative correlation between education and period of unemployment, and there is again positive correlation between cost of job search, and level of education. Further, period of unemployment for females is greater than what it is for males among the unemployed.

It has been shown that the problems of educated unemployment is becoming more and more acute, with the swelling tide of the seeking jobs without any corresponding increases in the job opportunities. The deficiencies in the educational system have made the investment on education uneconomic and unproductive.

The main argument is that the educational curriculum at the secondary school and at the university level, which are now biased in favour of general education without such a way that a distinctive mark of job – orientation is imparted to the whole problems of education.

A radical solution of the problem can be found only through continuing increases in the economic activity which could create increasing opportunities for productive employment.

All economic and social policies of Government, whether they are price policy, trade policy or taxation policy, should have one main guiding principle, viz., they should create the conditions necessary for an increase in employment. All other objectives

however desirable should be subordinate to the imperative need for marinating employment at a high level. Viewed from this angle, restrictive policies, fiscal of otherwise, which inhabit the growth of enterprises, should be avoided as far as possible at least till such time as unemployment. It has been brought down to manageable proportions.

It is also imperative in this context that the Government must devices an actives and realistic population policy. The population growth of a country is an important factor when planning for the future, it is essential to take into account the increases in the population, when planning for basis requirements such as food, clothing and housing.

There is also a desire need to select appropriate technologies for different sectors of the economy. Hence it is suggested that at various stages, education pattern should be attached to vocational training to overpower the educated unemployed.

It is also to be suggested that the employment exchanges should widen the scope of work especially in the fields of vocational guidance, forecasting the industry – wise demand for skilled personnel and of studies of labour market trends.

The unemployment problems in our country should, therefore be viewed, not as a residual problem to be tackled after other problems have been solved, but as the primary problems. All economic and social policies of our government should create the conditions necessary for an increase in employment particularly to the educated.

CONCLUSION

The problem of the educated unemployment is serious. That of the women is more serious. This must be solved at an early date.

What our limited discussion suggests it:

That an integrated approach is needed coordinating both educational quality and specific nature suitable to women must be established in economic curricula wherever possible

That coordination must be insisted in man – power, production and in education to serve long term and, short term requirements. That district – wise must be established to inter allies promote and strong then self – employment. The educated unemployment should be financially supported by the State Government to the extent possible. Such a policy will be programmatic against a realistic demographic policy as well.

Tiruchirappalli District an Overview of Economic Perspective

Introduction:

The global economic slowdown will have significant impact on how our economy does. The World Bank expects India to grow at 5.7 per cent in 2009, followed by a bounce back to 7.7 per cent in 2010. Accepting the fact that the Indian economy is slowing down rapidly, the government has offered two stimulus packages of more than Rs 52,000 crore (Rs 520 billion) along with the Reserve Bank of India cutting rates. Now this paper discussed our economy how effective from this global financial crisis and especially in Tiruchirappalli District.

Tiruchirappalli District – An Overview

It is Tamil Nadu's fourth largest City after Chennai, Coimbatore and Madurai with an estimated population of 1,139,534 (as of 2009). It is situated in the centre of the state, on the banks of the Cauvery River. Trichy is a Municipal Corporation and the administrative headquarters of Tiruchirappalli District. The most famous landmark of Trichy is the Rockfort temple which is perched on a huge rocky out crop. Trichy city encompasses Srirangam, a Vaishnavite temple and the biggest functioning Hindu temple in the world. Trichy also contains "ThiruAnaikka" (ThiruvAnaikkaval), House of Water, one of the five main abodes ("Panchaboodha Sthalam") of Lord Shiva. Chandrasekhara Venkata Raman was born in Thiruvanaikaval and his house has been preserved as a museum. Trichy is also called as Rock City.

Demographics

As of the 2009, Trichy had a population of 11,39,534. Males constitute 49.97% of the population and females 50.03%. Trichy has an average literacy rate of 91.45%. Male literacy is 94.17% and female literacy is 88.73%. In Trichy 9.59% of the population is under 6 years of age. The city's population is predominantly Hindu (with both Saivaite and Vaishnavaite), and there are sizable Christian and Muslim populations. Sikhs and Jains also are present in smaller numbers.

Economy

The economy of the district is getting diversified with the advent of various large and medium scale industries, yielding a wide range of production. The important industries are Bharat Heavy Electricals Limited, Seamless Steel tube plant, Ordnance factory, Highly Penetrating Plant and Railway Central workshop at Golden Rock. The district also noted for synthetic gem cutting industry concentrated in and around Tiruchirappalli town and also in Lalgudi and Manaparai Taluks. Industries of Tiruchirappalli in 2009

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Sl.No	ITEM	Nos.
1	Factories on the Register at the beginning of the Year	748
2	Factories added during the year	4
3	Factories removed during the year	7
4	Factories on the Register at the end of the year	745
5	Number of working factories	685

Agriculture of the Tiruchirappalli District

Centrally located in Tamil Nadu the Thiruchirappalli District has a Geographical area of 4,40,383 Hectares. Of which the net area cropped is 1,85,193 Hectares. Out of which about 102799 Ha are irrigated and about 82394 Ha are rainfed. The River Cauvery irrigates about 51,000 Ha. in Trichy, Lalgudi and Musiri Divisions. The normal annual rainfall is 842.60 mm. Multi various crops are grown in this District and Agriculture is the main occupation for most of the people in the District.

Tourism in Trichy

Trichy is a famous tourist hub in South India. From here you can explore temples of South India. There are thousands of tourists visiting this city every day not only from domestic destinations but also from International destinations. Apart from this Trichirappalli is well known for its Medical Tourism. Well equipped, modern Hospitals and best Professionals available here. People throughout the globe approaching these Hospitals because their treatment is world standard and also the medical expenditure are very low - comparing any other city in the world. Now Trichy is going to set her footprint in the IT business too.

Conclusion:

The city is now an industrial centre that has Modern Heavy Electrical (BHEL) Plant and a Locomotive construction workshop (Golden Rock Railway Workshop), A small arms factory (Hindustan Small Arms Factory) alongside traditional cotton hand weaving and world famous Woraiyur Cigar making cottage industries. Synthetic diamonds are manufactured here. A unique Diamond Market (Diamond Bazar) is active here. More than 1000 shops of original and synthetic Gem stones are doing business in this market. A number of small scale industries have also sprung up in Trichy, mostly around Thuvakudi and Mathur. Leather tanneries are located on the way to Pudukottai. Viralmalai, considered an industrial suburb on Madurai road has the factories. Manachanallur has numerous rice mills supplying polished rice all over Tamil Nadu and outside and is located about 7 km from Main Guard gate. The economy of the city is driven to a certain extent by IT/ITES companies encouraged by the support from state government. A dedicated stretch of land has been identified and developed to increase the state's share in national IT/ITES exports. Infosys is eyeing Tiruchirappalli for its expansion. Tiruchi economy is a standard one. Most of the people are depend on the Industries and Government jobs like BHEL, Railways, Educational Institutions. Another major group of people depend on the Agriculture.

Reviewed