

THE ROLE OF IRRIGATION TO ENSURE THE PROSPERITY IN SOUTH KARNATAKA

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ABSTRACT

As a result of green revolution, the technologies introduced by agricultural scientists in the field of bio- fertilizers, bio-pesticides and invented High yielding variety (HYV) seeds and addition to the irrigation introduced; these facilities have brought greater prosperity in terms of improved socio-economic condition of the farmers, increased per capita income, spread of education, political awareness and participation, increased transportation facilities, wider social contacts, changes in the food habits and dress patterns which are ensure the standard life of people. In this direction, the present paper tries to analysis the Role of Irrigation to ensure the prosperity in South Karnataka.

Keywords: *Sociology of Agriculture, Sociology of Development, Irrigation System and Social Change.*

Introduction

India is the land of agriculture. Here the people's occupations are influenced by their ways and means, ideas, thoughts, traditions and customs and above all their culture. Presently about 64 percent of people are engaged in agriculture and produce 27.40 percent of the total national production. After the Green Revolution, the technologies introduced by Agricultural Scientists in the field of bio- fertilizers, bio-pesticides and invented High Yielding Variety (HYV) Seeds and addition to the irrigation introduced; these facilities have brought greater prosperity in the life of people of the nation.

In the past, farmers were depending mainly on monsoons and when the monsoons failed or occurred irregularly the farmers suffered due to famine. But today the uncertainty caused by undependable monsoons is avoided by irrigation facilities. In some parts of the country alone helped the people in agriculture is meet their basic needs and pushing them up the poverty line.

Objectives

- To trace out the situation of Poverty of Farmers before irrigation.
- To find out the changes occurred on their socio-economic, cultural technological and other areas of activities.
- To understand the standard of living as changed it. Prosperity achieves in the villages due to irrigational facilities.

The Location of the Study Area

The location of the study area falls under Distributory-67 of Hemavathi Left Bank Canal(HLBC), which is about 166 kms from Hemavathi reservoir at Gorur of Hassan District in Karnataka state. Situated at the longitude of 76 degree 35 minute to 76 degree 40 minute E. and latitude of 12 degree 30 minute to 12 degree 40 minute N. And of 827.4m above Mean Sea Level.

The command area consists of 1,300 acres and five revenue villages and four hamlets namely, Yaregowdanahalli, Kadala, Kamanayakanahalli, Narayanapur and Hosalli and Maharastra-Koppalu, Doddegowdan-Koppalu, Devegowdan-Koppalu(Hamlet of Kodala) and Sanabad-Koppalu(Hamlets of Sanaba). Which study villages are coming under Pandavapur taluka and Mandya District.

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Tools of Data Collection and Analysis

Action Research Program (ARP) was carried out under IDPAD (Indo-Dutch Project on Alternative Development)- ICSSR (Indian Council for Social Science Research) Project on interdisciplinary study (i.e. Engineer, Agricultural Scientist and Sociologist) by NGO's ISARD (Institute for Studies on Agriculture and Rural Development) Dharwad, Karnataka from 1997 to 2000. The study consists of five phases i.e. baseline survey, preparation of action plan, implementation, feed-back and evaluation phases.

The present study was carried out after evaluation Phase of ARP. Out of the 524 farmers coming under HLBC D-67, roughly random sampling was used selecting 80 (i.e.15 percent) farmers from every village and every land holding size (including male and female).

The data were collected through structured interview schedule. The secondary data also used whenever necessary. Besides, data is also collected from Revenue Department, Census Records, Gram Panchayaths, Primary Health Centers, Primary and High Schools, Books and Journals. The collected data were classified and arranged in tabular form with the help of research techniques and procedures for systematic analysis and interpretation.

The Main Features of the Study Area

Social Condition

The basic foundation of Indian social organization are caste system, joint family and rural life. The peculiar caste system has survived throughout the ages and is influencing "every man from womb to tomb". Since the study is based on rural life, it is an important to consider, the joint family and caste system which are changing.

Before irrigation, 24 percent of the families were joint family. But after the introduction of canal irrigation of the percentage of joint family has come down to 17 percent because of individualism and conscious of freedom of thought and expression and emergence lack of Co-habitation which all resulted in nuclear families. On the other hand, farmers are living in nuclear families have become more responsible to getting inspection for hard work and living meaningful life.

The rural farmers now a day are surrounded by customs and traditions, religious rituals are based on caste system. Caste System can be seen in the caste pyramid. The caste pyramid explains that the pyramid occupied by Vakkaliga's dominated not only socially but economically as well as politically. This explanation of the concept of Andre Beitel in his work "Caste, Class and Power". In the above caste pyramid the scheduled caste occupied the lowest rung of hierarchy and rigid social mobility is applied in this zone. Purity is always maintained strictly. For example, they wash and put their tea or coffee cups in the hotels separately. The SC's also participate in marriages and religious ceremonies of upper castes but there is a separate arrangements made for them in dining. In case the upper castes who attend SC's marriages and religious ceremonies they do not eat any Pucca (Boiled) food. Rural temple entry prohibited for SC's. In spite of all these restrictions there is an exchange of agricultural tools, other raw materials and money between these classes of people and maintain the organization of Jajamani (Aya) system.

The seasonal festivals which often give religious color to the social community in the particular command area has generated strong community we feeling is much important in the Sociological literature.

Economic Condition

About 92 percent of the villagers are depending upon the hereditary and traditional occupation agriculture and the remaining 8 percent are engaging in non- agricultural occupations like, government and private services.

After the introduction of canal irrigation, the tail-end farmers lands size has reduced from 2.00 to 1.20 acres per family due to lands were submerged at the back water of Tonnur tank. But in spite of such a situation their percentage of income has increased because of the modern agricultural technology and use of High Yielding Variety (HYV) Seeds and proper use of fertilizers, insecticides and other methods of agriculture, their total income has been improved. The farmers have started growing High Yielding Varieties like, Paddy-IR-64, Jaya, Mandya Vijaya, Rashi,(IT-1444) and HR- 911, Tomato-Ramya, S-15, S-18 and Cabbage-Mahyco etc..

Now, the farmers are following improved cultivation practices i.e. package of practices that transplanting line sowing using and pesticides with a view to get higher yields. Before canal irrigation about 66 percent of the farmers are living below poverty line and their per capita income was Rs. 2,989/-. They were not in a position even to meet their basic needs. After the introduction of canal irrigation due to intensive agricultural cultivations employment opportunities increased, rearing increased and people were started subsidiary occupations like rearing goat, sheep and cattle. The results in the increase of per capita income up to Rs.8,833/-. As a consequence, their living condition has been improved considerably.

It may be observed that, after the introduction to number of both the small and marginal farmers are living below poverty line has come down from 66 percent to 33 percent and the medium income group families has increased from 33 percent to 57 percent and improvement in their annual income would help in the improve of standardized of living which indicates progression from poverty to prosperity. After the introduction of the canal irrigation, due to intensive agricultural cultivation, employment opportunities increased, wages increased (Rs.10 to 300) and they also started subsidiary occupations. The per capita income on an average increased from Rs.2, 989 to Rs.8, 833, an account of this, their living condition also improved.

Subsidiary Occupations

The study highlights that, there is an increased 9.35 percent from 20.80 percentage non-agricultural occupation s like, government and private services (8.59 and 2.48 percent), vegetables merchants (1.53 percent) cattle trading (5.24 percent), sheep rearing (3.00 percent) etc. It reveals that, above 60.00 percent of land area is growing paddy, 31.00 percent of land area is under light irrigated wet crops. The farmers are growing high yielding varieties i.e. paddy IR-64 HR-911 Rashi (IT -1444), Tomato-Ramya S-15 and S-18 are now following improved cultivation practices, using recommended fertilizers and pesticides on account of higher yields. By created awareness and intervention of agricultural scientist and inter-disciplinary team.

Agriculture in the main stream of farming families besides several subsidiary activities taken up by them, in order to substitute the family income. Extra income generated in helpful for the maintenance of the family expenditure. It is an additional amount to improve their economic status. Those who have sufficient land with irrigational facilities such as it irrigation grow vegetables. Which are high yielding tomato, cabbage, onion, Buttons and Cucumber. It is noticed in all the villagers that it is only those families which have small land holdings they only involve largely in vegetable growing from which they may be fast money area under cultivation. After irrigation the horticulture crops are increasing. The crops like coconut, Banana, Buttons etc under well irrigation are most popular crops among the farmers. The coconuts are planted only growly the bunds while other crops are raised in the prime area of the farm land.

Dairy

Now, dairy is another main and an important subsidiary occupation in the area. Before irrigation was introduced only two Milk Co-Operatives were existing at Hosalli and Kamanayakanahalli. After introduction of irrigation the milk co-operatives were founded and have been functioning. The following table indicates the details for an average milk collection per month and economic returns are as follows;

Table 1: The details of Milk Cooperative Societies

Village having milk co-operative societies	Established	Active members of society	Non-members but milk producers	Milk collection (Morning-Evening)	Amount given to producers from society per liter/ (Rs.)	Resale per liter/ (Rs)	Net Profit (Rs)
Hosalli	3-8-1979	243	-	260 180	34.40	40.00	5.60
Kamanayakanahalli	15-9-1979	138	-	120 60	34.45	40.00	5.55
Narayanapur	22-1-1996	090	12	130 85	34.45	40.00	5.55
Yaregoudanahalli	Nov- 1998	150	-	170 136	34.40	40.00	5.60
Kodala	5-2-1999	180	-	86 68	34.40	40.00	5.60
Total	-	801	12	765 530	-	-	-

Source: Field data

The women milk co-operative society at Yaregowdanahalli started in 1999 which is functioning very well as compared to other societies in the study area due to progressive mind of the villagers and women in particular. Prior to commencement of Hemavathi irrigation project, there were only an average 6 members were doing contract of piece work in the Krishna Raj Sagar Project (Mandya Dist.) After the commencement of Hemavathi irrigation project, the number of contractors are increasing in each village. The members who are doing contract works get improved their economic status in a very short period and they are leading better life which is comparable to the city life.

Spread of Education

Prior to irrigation due to lower economic condition of the people living in the study area, were unable to send their children to school. There were many drop outs especially in case of girls because the parents were of the opinion that by educating female children they were not much useful to their family. For they join the husbands family and stay there only till their last breath. After commencement of irrigation due to the change of their economic status, the made of thinking of people has been changed. Even the poor labor class desire to send their children to school in irrespective of gender. Majority of small and marginal farmers educate their children up to S.S.L.C(10 std.).Only big and well to do farmers send their children's for college and university education.

Now, the majority of people have realized the importance of education and their children's for small family norms and adopting birth control measures.

Living Condition and Life Style

Before irrigation most of the farmers were lived in Kuchha houses. Some farmers used the locally fabricated bricks for the construction of houses. Now the farmers use bricks and cement for the wall and for the roof Mangalore tiles are well to do farmers have taken up the repairs of old house with alterations inside the house spending huge amount. The reservation of old house could be taken up only by those families which have sound economy which is commonly seen in the study area.

Food

Prior to canal irrigation their staple food was Ragi with horse-gram carry using regularly. Only when occasionally used Rice, Non-vegetarian food in cooks during the festivals and there were outside guests, and when marriages were commenced paddy was not grown. Farmers were going to the Krishna Raj Sagar irrigation command area for laboring, planting, harvesting of Paddy and while working in the paddy fields they get the paddy and bring it for self use occasionally.

When canal irrigation was started 60 percent of the farmers started growing paddy. They have started using Rice as a staple food along with Ragi. Rice eating now considered as a right of staple. Their food habits were changed. They use Ragi and Rice every day for their food. And it also increased consumption of vegetables. The Meat is cooked quite frequently at least once or twice in a week. Use of milk and beverages also has increased

Dresses

Prior to irrigation, the common dresses for men are cotton half pant, shirts, and cotton sari and blouse for women.

After the introduction of canal irrigation, the dress habits have undergone considerable changes with the T.V. watching to their daily chosen of activities people have learnt to use good quality clothes. That who is educated, their dress code has been changed. Pant and shirts for men and nylon sarry, chudydhar, blouse for women in family style are now used. Lungi is common dress for literate and illiterate men, while using dhoti of mercerized. While color and cotton nylon mix is a status symbol now.

Social Contacts

Prior to commencement of canal irrigation farmers used to have social contacts largely with in the village or neighboring villages and very rarely with government departments and other outside organizations.

After irrigation most of the farmers have good social contacts with villagers, neighboring villagers and various government departments and other organizations. In the study area 5 to 8

civil contractors from each village, visit to government offices. Regularly the farmers also visit to taluk or district head quarters, where they will be having a work in the government offices. Most of the farmers visit nearby cities like Pandavapur, or Mysore almost every day for purchasing of consumables and also to market their surpluses like vegetables and milk.

Transportation and communication facilities

Prior to irrigation most of the farmers were visited city once in a week for purchasing household needs and selling of surpluses agriculture produces. At that time there were no adequate transportation and communication facilities.

After introduction of canal irrigation, K.S.R.T.C, private buses have started running between cities and villagers. Also started, tempos have provided good service to the rural area. Most of the farmers who grow vegetables in surpluses carry them to Mysore and other parts of Karnataka such as Gangavathi and Sindhanur in Koppal and Raichur Districts in north-Karnataka and also to Tamilnadu frequently. So, farmer's economic condition has been improved. About 8 percent of the families have Radio and about 75 percent have T.V., Majority of them use these mass communication media for getting, news and other entertaining programmes which they enjoy during leisure time. The Television is the most popular communication media as they have found is to be very effective in learning and entertaining. Some educated and well to do farmers purchase the daily news papers. About 23 persons from Kodala, 38 persons from Yare-gowdanahalli, 32 persons from Narayanapur, and 22 persons from Kamanayakanahalli. Purchase news papers which was not it all seen in these villagers prior to the introduction of irrigation. The Kannada news papers like, Sanyukta Karnataka, Prajavani, Andolana, Mysore Mitra are the popular news papers among the villagers.

After introduction of canal irrigation, the presentation of mythical dramas, social dramas and Kolata (folk) songs are reduced to minimum. The modern technological equipments such as T.V, Radio, mobile, Tape recorder, have replaced the traditional cultural entertaining programs with drama and other activities in these villages.

Formation of Self Help Public Rural Library

Motivated by the educated rural youths and the job holders from the village people have organized under the leadership of me (The author has worked as Sociologist in the inter-disciplinary team) and also contributed money to start a rural library in Yare-gowdanahalli village. Accordingly a meeting was held on 25-07-1999 and decision was taken to start a rural library named as "Kuvempu Public Rural Library". Each individual uses for required to pay Rs. 101/- as membership and for the time being the expenditure of the library is to be met out of the interest earned from the membership amount. The self help public rural library was initiated by Institute for Studies or Agriculture and Rural Development (ISARD) Dharwad an inter-disciplinary research team. The library is running smoothly. The reading educated youths are in the habit of reading the daily news papers to learn about the day- today happenings around and discuss the issues among the farmers assembled. The library is being subscribed several Journals and Magazines for readers on weekly, monthly. Quarterly, bi- annually and annually besides several dailies which are effectively used by the people of Yaregowdanahalli.

Political Awareness and Political Participation

Prior to commencement of canal irrigation every village has its own village welfare association. It has consisted of elderly representatives of every caste. The association had solved any problems that raised within the village. The young once used to give respect to elders of the association by accepting their suggestions and decisions. But now days, the association has existed and its nature and function has changed. The young once are thinking about their selves and have become individualistic. This type of individuality is not acceptable to elders. There is generation gap noticed that the only now in the villages. If appears difference of opinion in some matters of the village has been the resultant effect of the growing political awareness in every common farmer. Introduction of Panchayath Raj System has made the people to learn about the importance of their political participation. It is an hall mark of clear vision and expression of their desires in the democratic grass root politics. Political is supposed to based on the ability of the person acquiring it. But unfortunately it is now based on caste position of an power holder. As a result we notice in the villages in the study area where genuine political leadership being totally absent.

Women in Decision Making

Prior to introduction of canal irrigation women were not consulted economic activities, agricultural operations and other family matters were concerned.

After commencement of canal irrigation their economic condition has improved and they aware to sent the school their girl children. Those who have get the education of female their opinion is changed in fact they knowing about what is the important role and participation in any family matters.

Illiterate women status is also changed if taken any decision not consult with the females, women's have opposed. So that males are consulting and decision with the females of necessary on any family matters.

Conclusion

It also highlights that, living condition and life style, food habits, dressing pattern, literacy level increased, transportation and communication facilities, relationships have also changed due to impact of introduction of irrigation, spread of education, new technologies and intervention of inter-disciplinary approaches.

So looking to these it could be seen that scenario from poverty to prosperity of the farmers through irrigation is wished.

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