A Sociological Study of Beneficieries Farmer in Lift Irrigation Co-Operatives in Kolhapur District

Dr. K. M. Desai
Assist. Professor & Head Department of Sociology,
ShriShahajiChh. Mahavidyalaya, Kolhapur

Introduction:

Irrigation is an artificial application of water to land by human effort to assist the growth of crops, grasses and trees. The main foundation of irrigation is to mitigate the impact of irregular, uneven and inadequate rainfall with wide fluctuations from year to year .It also supplements the supply of rain water particularly in a country like India, where rainfall is concentrated in few regions during the monsoon from June to September, about one fifth of total water derived from rainfall is naturally made use of in growing crops. The remaining is being either lost by runoff evaporation or absorption by the soils etc. Hence additional supply of water through irrigation makes possible harvesting of two or three crops requiring perennial water supply. Irrigation has assumed an increasing significance in Indian context of new technology where high varieties and multiple cropping are being practiced.

The problem of ownership and distribution of water resources has emerged as one of the important issues during contemporary period. It has also acquired added significance in the context of sustainable agriculture in particular and rural development in general. Therefore, in predominantly agricultural societies, the expansion of irrigation and distribution and proper management of water resources are of crucial importance. The issue is generally conceived as an economic issue.

The agricultural sector occupies centerplace in the debates and discussions on sustainable development. Reddy observers that, "in the overall debate on sustainable development, agricultural sector is often at the center of discussions due to the obvious environmental problems associated with farming activities apart from being the dominant sector in the developing countries which are in the center of controversies related to environment." As defined by the Food and Agricultural Organization [FAO], sustainable agriculture refers to "The management and conservation of the resource base and the orientation of technological and institutional changes in such a manner as to ensure the future generation. Such sustainable development is environmentally non-regarding, technically appropriate, economically viable and socially acceptable" [Quoted from Reddy, 1995:A-21].The identification and application of improved institutional changes for both increased production to meet human needs of present and future generation and conservation of the resource base constitute the major elements in the concept of sustainable agriculture.Obviously, the issues related to land and water management are significant in the context of sustainable agriculture.

History of Co-operative Development in Kolhapur District:

Kolhapur is one of the leading districts of co-operative movement in Maharashtra. Co-operative movement made a revolutionary development of co-operatives in district was encouraged by a particular wise and fare sighted ruler Shahu Maharaja erstwhile maharaja of Kolhapur district. Shahu maharaja is particularly known for the work, he did the work to improve the economic welfare of the people, in particular, by improving the administration of the state, extending the rural infrastructure, developing the education system, and encouraging co-operative activity. The first two co-operatives societies Acts were passed in 1904 and1912, Shahu Maharaja enacted legislation encouraged the development of co-operative, helping in particular to establish co-operatives bank, co-operatives market societies and textile mill. After

the co-operative movement in Kolhapur district is broad spectrum and covering various activities such as banking, dairy, irrigation, spinning mills, poultry, housing, marketing, consumers, stores, fisheries, labour and credit societies, etc.

Lift Irrigation Co-operatives in Kolhapur District:

There are 596 lift irrigation co-operatives in Kolhapur district. They are presented in the following table.

Lift Irrigation Projects in Kolhapur District

Selected Talukas			Unselected Talukas		
Sr. No.	**Name of the Taluka**	**Total Lift Irrigations**	**Sr. No.**	**Name of the Taluka**	**Total Lift Irrigations**
1	Bhudargad	05	1	Ajara	10
2	Gadhinglaj	08	2	Chandgad	06
3	Hatkangale	181	3	Ganganbawada	01
4	Karveer	151	4	Kagal	28
5	Radhangari	53	5	Panahala	98
6	Shirol	47	6	Shahuwadi	08
Total		445		Total	151
Total= 445 + 151 = 596					

There are 12 talukas in Kolhapur district. The researcher initially by resorting to systematic sampling, six talukas were selected by alphabetically. Then taluka-wise list of lift irrigation co-operatives were prepared. Total lift irrigations are 596 in Kolhapur district.

Review Of Literature

There are numerous books and articles written on the subject of water. The researcher has include the reviews such as Khodaskar R.D.SalunkheSarjerao, Reddy V.Ratna, Water Commission on Environment and Development and Kohapur Gazette etc.

The Theoretical Perspective:

Social change and development perspective is adopted for the present study.

The Research Problem:

The present study aims was to understand and critically examine the socio-economic status of beneficiaries farmer of lift irrigation co-operatives, functioning in Kolhapur district of Maharashtra.

Objectives Of Study:

The specific objectives of the present study were as under.

1. To study the evolution and development of lift irrigation Co-operatives in Kolhapur district.
2. To study the organizational features of lift irrigation co-operatives and socio - economic background of their beneficiaries.
3. To offer suggestions for effective management of water resources in order to promote sustainable agriculture.

Hypotheses:

The specific hypotheses have been formulated of the present study as per the following.

1. The lift irrigation co-operatives have enabled the small and marginal farmers to have an access to water resources.
2. The lift irrigation co-operatives have led to increased agricultural production leading to improvement in economic condition and standard of living of beneficiary farmers.
3. The lift irrigation co-operatives have led to social development of the rural communities by encouraging inclusion of the socially backward and economically poor sections of village community.

The Conceptual Framework And Research Design:

The conceptual framework for the present study is social dimensions of sustainability and economic dimension of sustainability.

The Study Area:

The area for the present study is confined to Kolhapur district of Maharashtra state.

Universe Of The Study:

The focus of the present study is on the lift irrigation co- operative schemes on the sustainable

development of Kolhapur district. Therefore, all the 596 lift irrigation co-operativesand 4310 beneficiaries farmer functioning in Kolhapur district constitutes the universe of present study, out of 596 lift irrigation, the researcher confirmed 12 lift irrigation co- operatives and 84beneficiaries farmer functioning at the time of present study.

Selection Of Farmer Beneficiaries:

The offices of selected sample lift irrigation co-operatives were contacted. The list of member and non-member farmers beneficiaries were obtained from the office of respective Co-operatives. By using these lists, 05 beneficiaries from all the samples and 12 lift irrigation co-operatives were selected by using systematic sampling procedure.

Plan Of Analysis And Interpretation Of Data:

For the present study, the plan of analysis and interpretation of data has given as below:

1. The data has to be collected with the help of interview schedules, which has to be coded after preparation of code books.
2. The coded data has to be processed on computer by using SPSS software.
3. The computer output will be used for analysis and interpretation with the help of simple statistical tools such as frequency distribution and percentage.

Significance Of The Study:

The present study is mostly useful for the advancement of theoretical knowledge on the subject in particular and also for promotion of sustainable agricultural practices in general. The findings of the present study has enriched our theoretical understanding about whether lift irrigation co-operatives were contributing to agricultural development of beneficiaries and their economic and social development .

Two Phases In The Study: Sampling And Data Collection

The present study was undertaken in two phases, first phase consisted of general survey of lift irrigation co-operatives and the second phase consisted of detailed study of selected beneficiaries of sample lift irrigation co-operatives

Phase I: Survey of Lift Irrigation Co-operatives in Kolhapur District:

As per the plan of research, the data on certain general aspects of 12 lift irrigation co – operatives existing Kolhapur region, were to be collected with the help of questionnaire to be designed for this purpose. Researcher decided to undertake a survey of all the 12 lift irrigation co-operatives, officials of which positively responded to us and expressed their willingness to respond to the questionnaire.

Phase II: Study of a Sample of Beneficiaries of Lift Irrigation Co-Operative Schemes:

One of the objectives of this present study was to study the socio -economic background of the beneficiaries of the lift irrigation co–operatives.

Selection of Sample Lift Irrigation Co-operatives Schemes:

Twelve samples of lift irrigation co-operatives are located at 12 different villages in Kolhapur district.

Selection of Sample of Respondents [Beneficiaries of the LICSs]

The offices of all the 12 selected lift irrigation co-operatives were contacted and list of members and non- members of each of these lift irrigation co-operatives were obtained.

Selection of 'Members': Research has decided to select 05 beneficiaries farmer as sample from each of these 12 co-operatives respondents by adopting systematic sampling procedure.

Selection of 'Non- members': Research has decided to select o2 non- members from each of thelift irrigation co-operatives, which were having non-member beneficiaries by resorting to accidental sampling procedure The total members of all the 12 lift irrigation co-operatives were 84. As per the sampling plan, it was decided to select 05 members from each of the 12 LICSs and the thus, the total calculation comes to 60 and select 02 non-members fromeach of the 12 LICSs and the thus, the total calculation comes to 24, both members and non-members total comes 84.

Data Processing And Analysis:

In order to process the collected data through both the questionnaire and the interview schedule, the suitable codebooks [data definition files] were prepared. The data were processed with the help of computer. The computer generated output is used for the analysis and interpretation of the data presented in this report.

Major Findings:

The researcher has find out the five major findings in the present study which are given as below.

1. Modern Cropping Pattern:

Sugarcane crop is intense water consuming crop, with the increase in land under sugarcane cultivation the proration of land under other crops is decreasing which has ecological implications in the context biodiversity.

2. Overuse of Water:

Nearly 63 % beneficiaries have been giving more water than requirement so;it is serious problem in water management.

3. Absence on Farm:

Some of the beneficiaries farmer to remain absent on the farms when water is giving to the crops especially in the night times due to power load shading problem.

4. Electricity :

In the rural area there is big problem of power load shading.It is the serious problem of wastes water in the night periods when water is giving to the crops.

5. Land Degradation:

There is overuse of water and chemical fertilizers.

As per the above information on the major findings in the present study, it is clear that there is serious problem in water management for the sustainable development.

Suggestions:

The researcher has given suggestions to the government agencies, and the beneficiary farmers of lift irrigation.

A. Government:

The researcher has suggested for the government agencies in five types which are given as per the following.

1. Co-ordination:

First suggestion for the government agencies is about the co-ordination.

2. Monitor and Encourage:

Second suggestion for the government agencies is about the monitor and encourage..

3. Supply of Electricity:

Third suggestion for the government agencies is about the electricity.

4. Training Programs:

Fourth suggestion for the government agencies are about the training courses..

5. Scientific Knowledge:

Fifth suggestion for the government agencies is about the knowledge of farmers. .

B. Farmer Beneficiaries:

The researcher has also suggested for farmer beneficiaries of lift irrigation co-operatives.

The suggestion has given for the beneficiaries as per the following.

1. Avoid over-use of water:

The beneficiaries' farmer should avoid over-use of water to avoid degradation of land and save the water to use in summer session.

2. Avoid over use of Chemical Fertilizers:

The beneficiaries' farmer should avoid over use of chemical fertilizers to take care of degradation of the quality of land.

3. Use Modern Techniques:

The farmers should consult by the experts in the field of agriculture to know about the modern scientific agronomic practices.

4. Effectively Manage the Water Resources:

The farmers should help the management of their lift irrigation co-operatives in their efforts to effectively manage the water resources.

5.Give water line absence line:

The farmers should give water to the sugarcane crops in their farm as line absence line to purpose of water management.

6. Present on farm:

The farmers should present on farm while they were giving the water to the crops to purpose of don't waste water and do properly water management.

Conclusion:

To conclude, the present study revealed that, the lift irrigation co-operative in the Kolhapur district.

1. Enabled lower strata of peasantry to have an access to irrigation which was otherwise impossible due to lack of individual property.

2. Ensured fair supply of water among poor as rich farmers according to their needs based on their rights in hand.
3. Resulted in strong change in the pattern of cropping leading to rare increase in land under sugarcane cultivation.
4. Facilitated the development of modern agricultural practices.

The lift irrigation co-operatives have benefited the underprivileged section of the rural community; it is agencies for economic and social development.

References:

1. **Khodaskar, R. D.1998**. 'Performance of Lift Irrigation Co-operative: A Case Study'InSing Gursharan [ed].India's Rural Co-operatives, Regency Publication, New Delhi., pp. 353-363.
2. **Salunkhe, Sarjerao1998**. 'Water Management through Co-operatives: A case [in English],'Sociology of Environment' Pawar S. N. &Patil R. B [Eds.] Rawat Publication, Jaipur, pp. 247-256.
3. **Reddy,v.Ratna.1995**'En.vironment and Sustainable Agricultural Development', InEconomic and Political Weekly, March 25, pp.21-27.
4. **World Commission on Environment and Development 1987:** A chapter from OurCommon Future [1987] reproduced under the title, 'Towards Sustainable Development' in Science Age, August 1987, p.p 30-38
5. **Kolhapur Gazette Published in 2011**