



Impact of Participatory Irrigation Management

(A Case study of Karavli Water User Association)

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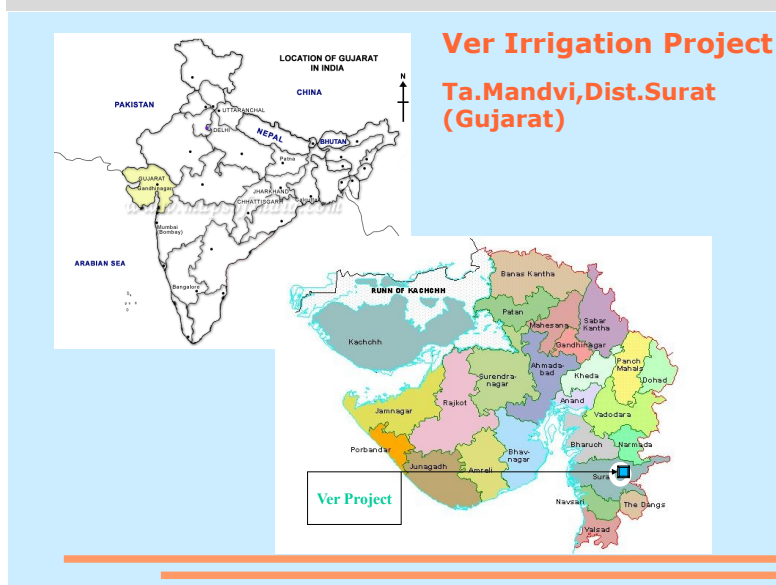
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Abstract:

Ver canal has been constructed from Godadha and Amla dam, which are 6 km away. The pickup weir for these dams is from Ver River, a sub tributary of Tapi River. It is located in Mandvi block of Surat District in South Gujarat. The Catchment area of Dam is about 90 sq km, Submergence area of 581 hectare and the Full Reservoir level to 115.80 mts.



The construction of this canal completed in 1959 was planned to cover cultivatable command area of 3558 hectares of land with Gross Command area covering to 7249 hectares. The length of main canal is 7.70 kms and discharge is 4.36 cum/sec. The canal has 3 branches with 20 minors and 12 sub-minors.

This project was planned to benefit 5000 farmers from 28 villages with 13 villages in its left bank and 15 to its right bank. 90 % of the beneficiaries of this project are tribal farmers. The beneficiaries belong to Chaudhari, Vasava, Rajput and Parsi communities. The average land holding of the farmers is 1-1.5 hectares.

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Keywords: Irrigation management, Participatory

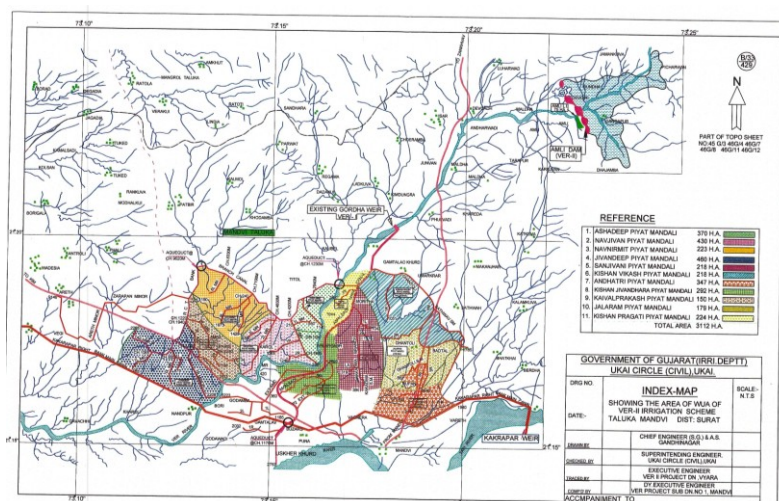
1. Participatory Irrigation Management start

In Oct, 2007, Irrigation department of Government of Gujarat invited AKRSP (I) an NGO, to take-up the Participatory Irrigation Management project for Ver project. The process started by formation of institutions for which trainings were organized with villagers and members from government department. Water user associations were formed for which training and exposure visits were organized. Trainings like Accounting training, Leadership trainings, water management training, member awareness training were given to the water user associations. In Ver Project area initially assessment was done on existing status, Motivation of Farmers was done through General Village Meeting, Exposure Visit to function farmer managed Mandali, Individual and family level contacts, Separate meetings with smaller group, Repeat exposure visit for non-convinced farmers/leaders, Consulting farmers in design for Understanding the actual problems at field level and asking farmers

to suggest changes, Formatting outlet wise groups after outlets are designed and finalized, Meeting of all representatives, selection of a management committee, Finalize plan for implementation of system, Application for registration and Training PIM Vicious cycle. Under this project there are 11 water users Association has been formed by government and AKRSP (I) and these are following:

1. The Aashadeep Water User Association, Saliya
2. The Navjeevan Water User Association, Karvali
3. The Navnirmit Water User Association, Uteva
4. The Kaival Prakash Water User Association, Amba Pardi
5. The Jeevandeep Water User Association, Kasal
6. The Kisan Vikas Water User Association, Tarsada Khurd
7. The Jalaram Water User Association Badatal
8. The Mandvi – Andhatri Water User Association, Andhatri
9. The Sanjeevani Water User Association, Kakdava
10. The Kisan Jeevan Vikas Water User Association, Amalsadi
11. The Kisan Pragati Water User Association, Moritha

2. Water User Association in Ver Irrigation Project



(Map showing water user association in Ver project)

2.1 The Navjeevan Water User Association, Karvali

Karvali Piyat Mandali is located in Mandvi block of Surat district and it is registered in 2008. It is located in the tail area of the project. It is 12 km away from Mandvi. This village has 275 households with a population of 1130 persons. Villagers are dependent on agriculture and dairy. Major caste persisting here are "Chaudhary and Rathod".

Rathod".

In this village Piyat Mandali was formed in 2008 with the help and support of AKRSP and the irrigation department. AKRSP (I) provides them training, exposure, workshop and regular meetings for awareness about more efficient use of water for agricultural purposes and it led to an increase in the irrigation area by 159.88 ha out of 280 ha.

1. Name of Piyat Mandali: - The Nav Jeevan Piyat Sahakari Mandali, Karvali
2. Year of establishment: - 2008
3. Total members: - 372
4. Total command area: - 280 ha
5. Name of Chairman: - Narnbhai Durlabhbhai Chaudhari
6. Name of Secretary: - Jitendrabhai Muljibhai Chaudhari
7. Committee Members of Society: 15
8. Village cover: - Karvali, Paradi
9. No. of minors: - 3
10. MOU: 2009

3. Process done in Karvali Water User Association

1. Assessment of existing status.
2. Motivation of farmers.

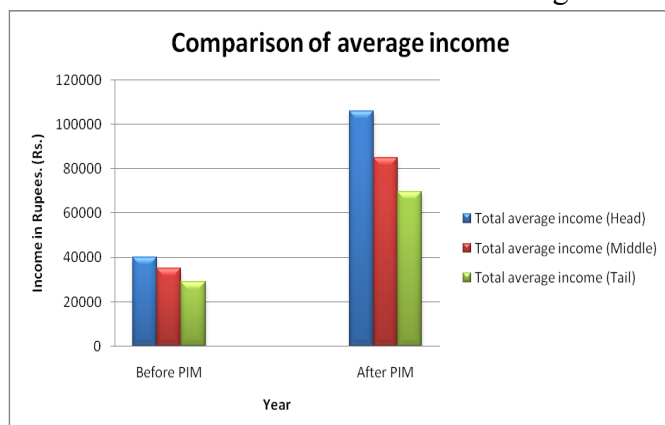
- A. General Village Meeting
 - B. Exposure Visit to function farmer managed Mandali.
 - C. Individual and family level contacts
 - D. Separate meetings with smaller group
 - E. Repeat exposure visit for non-convinced farmers/leaders.
3. Consulting farmers in design
 - A. Understanding
 - B. Field level
 - C. Asking farmers to suggest changes.
 4. Formatting outlet wise groups after outlets are designed and finalized.
 - A. Listing, B. Meeting, C. Ask
 5. Meeting of all representatives, selection of a management committee.
 6. Finalize plan for implementation of system.
 7. Application for registration.
 8. Training.

4. Because of above process for Participatory Irrigation Management the water user Association took following activities and responsibilities for run the system

1. To carry out timely maintenance and repairs to the distributor system including drains and other properties.
2. Ensure measurement of water flows at head and obtain allocated quantity of water.
3. Prepare the schedules of water deliveries to different reaches in the system and communicate to the concerned.
4. Organize supply of water to all members in the command area as per the approved.
5. Inspect water utilization by the farmers in the command; assess irrigated crop data on crop yield.
6. Furnish information to irrigation department.
7. Educate farmers on new crop varieties, packages of practices, pesticides, weedicides, etc.

5. Impact of PIM in Karavali Water User Association

- On an average, 300 beneficiaries are getting benefit in past three years. Before PIM 97 farmers were getting water.
- In past three years 1.98 lakhs of rebate has been received from government department with an average of 0.66 lakhs per year.
- In past three years 4.25 lakhs has been paid to the government towards water charges with average of 1.41 lakhs per year.
- Increase in water Rotation: Before PIM farmers were able to take 3 Rotation for Irrigation now they are getting 6 Rotation of water
- Increase in Irrigation area also: Before PIM 62 hectare area irrigated and 97 farmers were taking water now total 159 hectare area under irrigation and 334 farmers getting benefit.



- There is reduction immigration also due to Irrigation Management work.
- Changes in cropping patterns: Considerable increase in Vegetable (135.71%) & sugar cane (195.80%) production. before PIM farmers were getting crop of Paddy, Juwar, Ground Nut etc..
- Increase in Income: Income has been doubled after PIM practices. In the year 2007-08 was Rs. 35,453 while that in year 2009-10 resulted in Rs. 89,052. The

rise in average income in the period of three years is 115.18 %. It is resulted due to proper distribution of water caused in the period in-between.

- Increase in Nutrition Intake: Due continuous growing of vegetable and Pluses after PIM their nutrition intake increased.
- Change in livelihood pattern: Increase in income facilitated people to make pucca houses with sanitation and biogas plant in their house. After PIM, assets like engine for irrigation, Bore well for irrigation, mobile, motorcycle, television or other agricultural inputs have been created.
- Increase in Green Fodder availability and food security also: Due to irrigation in village there is increase in Animal Husbandry because green fodder is available in village, Due to that before PIM there is yearly payment of Rs.37,99,963 Karavali village in year 2005-06 and now after PIM in year 2013-14 the payment of Rs 1,06,82,000 in Karavali milk co operative society.
- Due to Participatory Irrigation Management work there are some other impacts happening at village level.
- Increase Integration among groups at village level and also increase awareness in villagers Liaison skill developed with different departments
- Now Conflicts are resolved by Canal Irrigation Society itself
- Minor repairing works are done by CIS from their own funds

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