Chapter – 6

Case Study, Some Exposure
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Case Studies and Some Exposure

Case: 1 Changing Mindset of farmers about the membership in Water User association (‘Piyat Mandali’)

Few farmers of Karavali village had a view about the Mandali – “why should I be the member of this Mandali? It does not matter to me whether the Mandali exists or not? Why should I pay for the Mandali and be a member. How Development Organizer of Non-government Organization changed the mindset of that farmers.

At first he elaborated the need of cooperation for the benefit of farmer. He said “we are here for you! We cannot work unless you support us. This Mandali (water user association) is meant for your upliftment; unless you involve yourself the motive of this Mandali cannot be fulfilled.

Than Ishwarbhai (Development Organizer) directed the existing committee member to reach the doorstep of non-existing and aware them about the need of hour in their own way. Meeting at the frequent interval would prove to be effective.

Committee member went and said “the government is sending due bill letter every season for the use of canal water even though we not getting it regularly. If we cooperate with the Mandali we our self can better manage the canal water. Moreover. If you be member of Mandali than you won’t have due bill in government record. Then it would be due to mandali. The burden would get shifted out of your shoulder.

They used to provide gifts to the farmers i.e. mango grafts through AKRSP (I), SRI paddy seeds @50% subsidy. This step also proved to change the mindset of farmers as they realized that the Mandali is really thinking for their benefit.

Case: 2 Operator Ratilalbhai

Operator being a government employee and a key role player for distribution of water had the duty of gate opening and diversion of water from one area to another. Before the formation of the Mandali he was sincere to his work and did not have proper support from the villagers. Sometimes few farmers used to force him to keep the water to his field only. Thus uneven distribution. He used to go home even before f o’clock evening.

After the formation of Mandali the operator got proper support from the Mandali. He realized that the Mandali is active and asking for every data about the discharge of water. Every sort of dispute got normalized on his approach to mandali. Now he is working till night.
Case 3: Bakulbhai Chaudhari (Survey no.93/2L, 208/2R) Village: Karavali

Bakulbhai had land holding at two areas with survey no.93/2L and 208/2R. The Plot with survey no. 93/2L was at the head region of the dam while 208/2R was at the tail region. Bakulbhai had a problem that whenever canal water used to flow through the area adjacent to his plot with no.93/2L, his plot was getting flooded with water and over that his plot with no.208/2R was not getting water. So Mr. Bakulbhai approached to Mr. Pawar of irrigation Department. He was complaining for the same for 10 years but with no resulted to quarrel.

But after the arrival of AKRSP (I), they made the villagers to the maintain the canal and cleaned it properly. Thus is resulted in proper distribution of water and now Mr. Bakulbhai is not getting his plot flooded. Moreover, his plot no 208/2R is also getting water timely and properly and now Mr. Bakulbhai is with no complaints. When he meets Pawarbhai there is no despair.

Case: 4: Impact of Participatory Irrigation Management in Karavali Water User Association

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-convincing 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). The Karavali is one of that.

The Navjeevan Water User Association, Karavali

Karavali Piyat Mandli is located in Mandvi block of Surat district and It is registered In 2008. It is located tail area of project. It is 12 km away from Mandvi. This village has 275 households with population of 1130 persons. Villagers are dependent on agricultural and dairy. Major caste persisting here are “Chaudhary and Rathod”.

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

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

Process done in Karavali 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 management committee.
6. Finalize plan for implementation of system.
7. Application for registration.
8. Training.

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

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

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%) and 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 and 2,66,520 liter milk collection in Karvali in year 2005-06 and now after PIM in year 2013-14 the payment of Rs 1,06,82,000 and the milk collection 5,40,709 liter in Karvali milk cooperative 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
Case 5: Increase Irrigation area due to Repair & Maintenance work in Saliya Water User Association

Saliya water User Association is situated in Head area of Right Bank canal of Ver project. Under this water user Association at one location in Saliya village Irrigation Department provide pipe for direct irrigation and by using of that pipe 5 to 6 farmers irrigated their farm due to this pipe but at that location there is sub minor available and it was silted with soil since many years. The head region 5-6 farmers get water due to that pipe.

There was discussion in meeting about this issue and decided to provide water to tail farmers of that sub minor and planned to do work. For providing water they decided to clean the sub minor by “Shramdan” and “Shramdan” is compulsory for all farmers. As decided by above things by farmers they start to work due to that work sub minor cleaned and water reach up to tail area where last 15 years water not there.so due to that work tail area farmers see water after long time means last 15 year nobody seen canal water in that area and first time done irrigation in that area. After that discussion happened in water user association meeting and WUA decided t construct direct outlet at that point where pipe has been put. Request put up by wua to Irrigation Department and in Ngo also. NGO approved this work and water user association decided to give 10 % contribution and work has been done with financial support from AKRSP (I).

Due to that work minor start with control system and irrigation happened in 28 hectare area where earlier before this work 5 to 6 hectare irrigation was in place. Due to this other farmers of Head area motivated and ready to join in this concept and feel that this is useful for them.

Case: 6 Irrigation help Chimanbhai for improving livelihood.

AKRSP(I) initiated PI work in saliya village in year 2008 and formed saliya water user association in 2008.for trust building and water management part AKRSP(I) Planned exposure visit at Rangpur and Isar village where people were managing the project and doing participatory Irrigation Management programme. Also AKRSP (I) done training and exposure in saliya wua. Due to that work Chimanbhai also motivated to join in water user association and Chimanbhai take membership in saliya and became member. After joining in water user association he comes to attend meeting regularly put their question about his village situation. At their water not going and no area irrigated. In committee meeting there was discussion about that and Saliya Mandali decided to do something about that, they also discussed that how Isar and Rangpur Mandal reach water tail area by doing canal cleaning and construction in their area. Saliya WUA decided to do “Shramdan” in that minor and Chimanbhai took responsibilities for doing this work and farmers of that minor done “Shramdan” and after 15 years water flow in that minor.Chiman got water in his field first time after 15 years and his field in in tail region of minor.

Chimanbhai having 1.36 acre land in tail area. After that land irrigated by canal water before that Chimanbhai grown rain fed crop like Juwar(Sorgam),Tuvar(Pegion pee),Balckgram(Adud).Due to irrigation Chimanbhai got following income:

Name of farmer: Chimanbhai Chaudhari
Name of WUA: The Aashadeep Piyat sahkari Mandali, Saliya
Village: Saliya
Taluka: Mandvi

Family members: 4 nos

Total Land: 1.36 acre

**Income by Irrigation**

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Crop Name</th>
<th>Area(acre)</th>
<th>Production in Quintal</th>
<th>Market Rate in Rs.</th>
<th>Total income in Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Groundnut</td>
<td>0.75</td>
<td>7</td>
<td>2500</td>
<td>17500</td>
</tr>
<tr>
<td>2</td>
<td>Fodder</td>
<td>0.35</td>
<td>100</td>
<td>85</td>
<td>8500</td>
</tr>
<tr>
<td>3</td>
<td>Sugarcane</td>
<td>0.75</td>
<td>150</td>
<td>190</td>
<td>28500</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>54500 Rs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Detail of expenditure</th>
<th>Ground nut</th>
<th>Sugarcane</th>
<th>fodder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Primary Cultivation</td>
<td>210</td>
<td>420</td>
<td>84</td>
</tr>
<tr>
<td>2</td>
<td>Watering</td>
<td>300</td>
<td>600</td>
<td>175</td>
</tr>
<tr>
<td>3</td>
<td>Sawing expenditure</td>
<td>300</td>
<td>800</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Seeds expenditure</td>
<td>1500</td>
<td>3600</td>
<td>350</td>
</tr>
<tr>
<td>5</td>
<td>Fertilizer Expenditure</td>
<td>600</td>
<td>1500</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Wadding expenditure</td>
<td>750</td>
<td>750</td>
<td>300</td>
</tr>
<tr>
<td>7</td>
<td>Harvesting expenditure</td>
<td>750</td>
<td>2100</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Other</td>
<td>100</td>
<td>0</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>4510</strong></td>
<td><strong>9770</strong></td>
<td><strong>2009</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total</strong></td>
<td><strong>16289</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Profit = 54500-16289=38211 Rs.**

Chimanbhai got 38211 Rs. income in year and doing three season agriculture before that he grown only rain fed crops and not get much income and due to irrigation he get fodder so he also doing Animal Husbandry program and getting additional income from that and living happily with family and he also advise to other people to join in Mandali and doing work actively in Mandali.
Case 7 – Hathuka Irrigation Cooperative Society

Registration: 27-01-1083

Villages Covered: 6 villages (Golan, Hathuka, Bhimpor, Dumkhal, Kanjod, and Kumbhiya)

Member: 866 no

Date of WUA takes Management: 12-11-1986

Area of WUA: 1073 hectares

MoU Date: 16-02-1968

Committee Members: 9

Financial Status:

- Share Bhandal (Balance): 43,300 Rs.
- Reserve Fund: 557 Rs.
- Recoverable Farmers: 2, 13,600 Rs.

Government Recovery: 100%

Beneficiaries: Open: 7 %, SC: 3 %, ST: 88%.

Initial Process of Water User Association: Before formation of Water User Association the irrigation management done by irrigation department that time farmers were facing problem of water farmers were not get water regularly, there were happened problem between village for water, earlier water flow up to 50 to 60 days for rotation in 11 kilometer length. than after also sometimes farmers not get water. After that for solving this problem farmer’s guided by local leader name Chhitubahi and Government officer support them and leader take responsibilities for formation of water user association. In initial stage all famers were not ready to join but leader continuously tried to Convenienc to them and slowly they joined in water user association and now they are happy.

Hathuka WUA - Irrigation Management work

- Doing Committee meeting regularly
- Doing Annual meeting
- They having 4 supervisors and 12 labour, Labor doing irrigation work in farmers field (for irrigation period)
- Payment for Supervisor-150 Rs per day, 120 Rs. labour per day
- Water Charge as per government rate
- Irrigation charge of labour 100 Rs. per watering per hectare.
- Farmers fill up form for irrigation and deposit 800 Rs per acre.
- Area Measurement by Society
- Average 8.0 lakh Rs. Yearly water bill, 50 % rebate (approximate 4.0) lakh Rs.
Main crop Sugar Cane
Structure : Chairman-9 Committee member,1 Secretary,4 supervisor,12 labour
Rules Regulation for irrigation
Operational expenditure: Supervisor, Labour, Administrative, Visitor etc.
Recovery System: Deposit first, remaining bill paid up to 30 October.
Puja two time year for water when water start and water closed.
Decision inform to member in written form , give a copy of rules which decided in meeting
Future plan : Construction of office building

Situation Analysis (Based on discussion with farmers)

<table>
<thead>
<tr>
<th>Before PIM</th>
<th>After PIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faced Problem for taking water</td>
<td>Getting water easily by turn, labour help</td>
</tr>
<tr>
<td>Water flow up to 50 to 60 days for Rotation,</td>
<td>15 days Rotation – reach water up to tail in</td>
</tr>
<tr>
<td>reach up to 11 km length</td>
<td>3 to 4 days</td>
</tr>
<tr>
<td>Canal is not in good condition</td>
<td>Institution – water User association</td>
</tr>
<tr>
<td>No Integration, No Institution</td>
<td>Institution of six villages</td>
</tr>
<tr>
<td>Easily available labour</td>
<td>Labour shortage</td>
</tr>
<tr>
<td>Tension between farmers and village to village</td>
<td>Increase Income ,Each village have four</td>
</tr>
<tr>
<td>Silt in canal</td>
<td>wheeler &amp; two wheeler</td>
</tr>
<tr>
<td>Water Ponding in canal</td>
<td>Repairs and Maintenance by WUA</td>
</tr>
<tr>
<td>No ownership of farmers of canal</td>
<td>Regular Committee meeting &amp; Annual meeting</td>
</tr>
<tr>
<td>No meeting of farmers for water</td>
<td>Facility of labour for irrigation</td>
</tr>
<tr>
<td>R &amp; M by Department</td>
<td>Ground water Increase ,Recharge in well</td>
</tr>
<tr>
<td></td>
<td>100 % recovery of government</td>
</tr>
<tr>
<td></td>
<td>Get rebate from government</td>
</tr>
<tr>
<td></td>
<td>Puja two time in year when water start and</td>
</tr>
<tr>
<td></td>
<td>water closed</td>
</tr>
<tr>
<td></td>
<td>Minimum 30 times visitor for see the WUA</td>
</tr>
</tbody>
</table>

What is requirement for run good water user association: View of Hathuka WUA Leader

Good leader in water user association
No relation for work in water user association, each and every member treats as a member no big, no small, and no relative
No Politics in water User association
Good Employee
Area Measurement compulsory
Work as per Rules and Regulation of water User Association
Recovery should be 100 % and paid to Government to 100 %
Transperent administration and financial transaction
Neutral leader ,No bias
Rules application is equal for all