

# Final Report

---

## State PIM Think Tank for strengthening of PIM in Uttar Pradesh Water Sector Restructuring Project

**Development Support Centre, Ahmedabad and the Awadh Research Foundation,  
Lucknow.**

August 2013 to July 2014

---

## **[I]. Introduction**

### **Background & Context**

Uttar Pradesh is the most populous State in India with a population of over 19,95,81,477 (2011 census). The State is blessed with the fertile Indo-Gangetic Plain, which is well known for its high natural soil fertility and good groundwater resources. Despite this, the state, however, is often categorized as a lagging state because of its low per-capita income (Rs 29,417 at current price in 2011-2012) which is much lower if compared to the national average of Rs 46,117 per annum.

Agriculture is the major economic activity of the State – with the sector accounting for about 25.01 percent of the State GDP in FY 2009-2010 and almost two-third of the workforce being dependent upon it. The rural population of the State is especially dependent on the sector as a major source of livelihood.

### **Irrigation System in Uttar Pradesh**

About 70 percent of agriculture in Uttar Pradesh is dependent on irrigation with about 30 million hectares of crop-land currently irrigated – with around two-fifth dependant on surface water sources – at cropping intensities greater than 100 percent. Out of this, the canal system in the State is estimated to be approximately 71,781.97 km. long, including – 4,261.59 km. of main canal, 7,106.52 km. of branch canal, 23,226.19 km. of distributaries (*rajwaha*), 35,615.43 km. of minors (*alpikas*) and 1,572.24 km field water channels.

It is estimated that the current surface irrigated area is only around one-fifth of its actual potential – including major, medium and minor schemes. Furthermore, water use efficiency in most parts of the irrigation systems is also low – in the range of 30-40 percent. The major reasons attributed for this substantial gap include for such situation is due to the lack of a need based operation and maintenance of surface irrigation system, increasing expenditure on operations and management, improper management of water distribution and exclusive control of the State government on the management of the canal irrigation and non-construction of on-farm development works. Furthermore, water use efficiency in most parts of the irrigation systems is low in the range of 30-40 percent.

In the year 1999, the Government of Uttar Pradesh adopted a progressive State Water Policy (SWP) which was in line with the National Water Policy. The broad objectives of the SWP were to — (i) ensure preservation of the scarce water resources and optimize its utilization and bring about qualitative improvement in water resource management which should include users' participation and decentralization of authority; (ii) maintain water quality (both surface and underground), to established norms and standards; (iii) promote formulation of projects on the concept of basin or sub-basin, treating both surface and groundwater as a unitary resource and ensuring multi-purpose use of the water resource; (iv) ensure ecological and environmental balance while developing water resources; (v) promote equity and social justice among individuals and groups of users in water resource allocation and management; (vi) ensure self-sustainability in water resource development; (vii) provide a substantive legal framework for management; (viii) develop an adequate information and knowledge base; (viii) promote research and training facilities in the water sector; and (ix) provide mechanisms for the resolution of conflicts between various users.

With the aim of implementing the SWP recommendations, the Government of Uttar Pradesh introduced a long-term programmatic framework for initiating water sector reforms. In doing so, Government introduced the World Bank sponsored U.P. Water Sector Reforms Project (UPWSRP) in the State. The primary objective of the project was

to ensure a paradigm shift by adopting a river-basin approach for development and management of water resources. This program envisaged a State-wide policy and institutional reforms, in addition to reforms in the development and management of water resources in each of the five major river-basins of the State. Further, it also recognized that cross-sectoral issues such as water scarcity, competing demands for water, pollution and environmental sustainability must be resolved at a higher policy level to provide an enabling environment for optimizing the productivity of water

### **Uttar Pradesh Water Sector Restructuring Project (UPWSRP) Phase-1**

Recognizing the central role of the Participatory Irrigation Management (PIM) concept, the Irrigation Department, Government of Uttar Pradesh introduced the Uttar Pradesh Water Sector Restructuring Project (UPWSRP) in the year 2004 with the support of the World Bank. The UPWSRP Phase-1 – which closed formally in October-2011 – was the first step towards the formalization of the PIM concept in the State. In doing so, irrigation and drainage systems covering about 3 percent of the irrigated area (3,00,000 ha) were rehabilitated and modernized in the pilot Jaunpur Branch basin using modern surveys & designs during the UPWSRP Phase-1.

Realizing the fact that farmers and water users associations (WUAs) are central to efforts aimed at managing systems at the local level and to improve agricultural productivity and water-use efficiency at the field level, the Government of Uttar Pradesh introduced the seminal Participatory Irrigation Management (PIM) Act in the year 2009 during the UPWSRP Phase-1.

The vision of the PIM approach towards irrigation water delivery in the State was to – (a). establish and build the capacity of these local institutions (WUAs) to take charge of and monitor the current status of the irrigation system under their control; (b). Participate actively in undertaking system design with the UPID (either by carrying out the works themselves or through tripartite agreements with the UPID and the contractor whereby they have a role of formal sign-off on design and quality of works); (c). Carry out on-farm development (OFD) works (wherever required); (d). Manage the local water distribution themselves; (e). Assess water charges; (f). Manage finances; (g). Operate and maintain local infrastructure; (h). Resolve conflicts; (i). Plan and operate the schedule of water; (j). Encourage conjunctive use of surface and ground water for intensified and diversified agriculture production system; and (k). Promote greater efficiency of water use.

Since the introduction of the 2009 PIM Act, a total of 8858 WUAs at the outlet levels, 805 WUAs at the minor levels and 28 WUAs at the distributory level have been formed during the UPWSRP Phase-1 period.

### **Uttar Pradesh Water Sector Restructuring Project (UPWSRP) Phase-2**

In the Approach Paper for the Twelfth Five Year Plan (2012-2017), the Government of India identifies investments in the agriculture sector as effective means to reducing poverty. In doing so, the policy paper for the 12th Plan recognizes that higher levels of investments in agriculture, (both by the public and private sector), can yield much better results if the reforms are undertaken to streamline not only the incentive structures for the farmers, but also the institutional framework in which agriculture and related activities take place. Seeds and irrigation are highlighted as priority assets, which can be catalysts for raising productivity on the supply side. The overall management of water resources (where agriculture is the largest consumer in India) is also highlighted as a challenge requiring attention in the Twelfth Plan. Solutions through greater efficiency in water use are recognized as critical with more focus given to better management of

water in areas of large and medium irrigation projects. This also requires putting in place more holistic aquifer management strategies. Finally, other key water management activities identified in the Twelfth Plan include – (a). Steps to improve governance in water management through Water User Associations (WUAs); (b). Focus on on-farm works & the rehabilitation and physical modernization of existing major irrigation systems; (c). Comprehensive aquifer mapping and extensive ground water recharge; and (d) Integration of these activities with existing surface reservoir based canal irrigation.

The components and activities identified for the Uttar Pradesh Water Sector Restructuring Project (UPWSRP) Phase-2 support specifically the planning objectives of the Government of India elaborated previously.

The implementation of the PIM concept during the first phase, presented a myriad of experiences and learning opportunities for the programme managers of UPWSRP and the irrigation department. Based on these unique experiences and coupled with the aim of taking the positives gained during the first phase of the project further, it is now proposed to introduce the World Bank supported UPWSRP Phase-2 in the State.

The major objectives of the Uttar Pradesh Water Sector Restructuring Project (UPWSRP) Phase 2 are –

- ***To strengthen the institutional and policy framework for integrated water resources management for the entire State; and***
- ***Enable farmers in the targeted irrigated areas to increase their agricultural productivity and water productivity.***

One of the most crucial components envisaged under the proposed UPWSRP Phase-2 is to strengthen the Water Users Associations (WUAs) and implement the concept of Participatory Irrigation Management (PIM) in the project areas in true spirit. In doing so, it is estimated that the project (spanning a total of 16 districts) would provide benefit to almost one million cultivator households and provide support, strength and direction to more than 2000 water user associations (WUAs) at the minor level, along with 20,000 WUAs at the outlet level and another 200 WUAs at the distributory level.

### **[II]. Justification for Concept**

Some of the major observations/learnings related to the implementation of the PIM concept during Phase-1 of the project were as follows –

- A total of 8858 WUAs at the outlet levels, 805 WUAs at the minor levels and 28 WUAs at the distributory level were formed during the UPWSRP Phase-1 period.
- Various agencies involved in promoting PIM lacked the finer skills for operationalizing the same.
- Limited resource material available for awareness creation and capacity building of various stakeholders.
- Lack of sustained capacity building inputs to WUAs.
- Felt need for sensitization of functionaries to adopt participatory approaches in irrigation management.
- Need for developing learning & performance monitoring systems.

In light of the experiences of the first phase, it was proposed to institutionalize a system for implementation of the PIM Act under UPWSRP Phase-2 whereby a consortium of two institutions with adequate expertise in the field of Participatory

Irrigation Management (PIM) was identified for setting-up of a State PIM Think-Tank (SPT). In doing so, the two institutions identified for setting-up of the SPT are as follows ----

- Development Support Centre (DSC), Ahmedabad; and
- Awadh Research Foundation (ARF), Lucknow

The SPT has been established at the level of the Project Activity Core Team (PACT) – for sensitizing, acclimatizing, supporting and capacity building of the UPID programme managers to make the Water User Associations (WUAs) self-reliant and sustainable entities.

### **[III]. Assignment Objectives**

The primary objective envisaged for the proposed State PIM Think Tank (SPT) entails : *“Providing services for extension activities, capacity building, brain-storming, action research, monitoring & evaluation and advice in the development of participatory irrigation management in the State”.*

### **[IV]. Human Resources Deployed and Systems Developed**

The DSC and ARF have deployed following key personals for coordinating and implementing the project. Currently a four member team of DSC and 10 member team of ARF for capacity building has been deployed for capacity building and 12 member has been deployed by ARF for developing model WUAs in Phase -1. The capacity building team was deployed from August while the implementing team was deployed from October 2013. Over and above this team, a four member core team consisting of senior officers from DSC and ARF has been involved since design and inception of the project. The list of the team members is given in the Annexure -1 The team members have been involved in the following activities :

- Activity-1 : Diagnostic Study of PIM in Phase-1.
  - Activity-2 : Development of Shared Vision for PIM & Capacity Building.
  - Activity-3 : Exposure Visits of UPID officers and WUA representatives to Gujarat and Madhya Pradesh.
  - Activity-4 : Development of Information, Education and Communication (IEC) Materials.
  - Activity-5 : Development of Training Modules
  - Activity-6 : Development of Model WUAs in Phase-1.
-

## **[V]. Overview of Major Activities Undertaken**

### **1. Diagnostic Study of PIM in Phase-1**

The rationale for selecting the PIM approach as a tool for upgrading the management of irrigation systems and thus, enhancing the chances for their long-term sustainability derives from a broad-based international experience, which highlights the necessity & demonstrates the feasibility of devolving responsibilities for irrigation systems management (including funding of O&M) from public agencies to water users sharing a hydraulic unit or a command area.

Numerous experts have, in recent times, stressed on the fact that sustainable WUAs require an enabling environment, clear political will with clarity of objects, accountable partnerships and incentives. Merely creating a legal framework or linking them with rehabilitation projects alone, cannot ensure successful & strong WUAs. Nevertheless, empowerment of water users, long-term capacity building, financial resources, appropriate incentives with timely monitoring and remedial actions can go a long way in strengthening the WUAs. The sustainability of a WUA clearly depends upon the combination of a number of internal factors, such as – farm size, location, social stratification & heterogeneity; and external factors, such as – the institutional environment, legal framework, staffing, financial & technical assistance, agricultural policies, markets, hydraulics and demography.

As mentioned previously, recognizing the central role of the Participatory Irrigation Management (PIM) concept, the Government of Uttar Pradesh introduced the U.P. Water Sector Restructuring Project (UPWSRP) in the year 2004 with the support of the World Bank. The Phase-1 of the project (which closed formally in October-2011), was the first step towards the formalization of the PIM concept in the State.

In order to accomplish the envisaged objectives of any programme, it is essential to institutionalize a mechanism for regular monitoring and evaluation from time-to-time. Regular monitoring and in-depth evaluation helps in the identification of the strengths and weaknesses of a particular scheme and in earmarking the grey areas. Evaluating the ultimate achievements and the impact of the various objectives planned and implemented under the scheme not only helps in fine-tuning a given scheme/program but also in identifying the possible innovations that can be introduced into the system.

Realizing the importance of this fact and especially in light of the fact that one now stands at the threshold of the launch of the UPWSRP-2 in the State, it was decided to undertake a Diagnostic Study of the Water User Associations (WUAs) from the U.P. Water Sector Restructuring Project (UPWSRP), Phase-1 areas – with the aim of documenting the evolution of the PIM process and the status of the WUAs with regard to various issues envisioned under the U.P. PIM Act, 2009.

#### **OBJECTIVES OF THE STUDY**

The primary objective of the diagnostic study was to : *“Assess the status of PIM – with specific focus on the Water Users’ Associations (WUAs) in the U.P. Water Sector Restructuring Project (UPWSRP), Phase-1 areas”*. Specifically, the study focused on the following key objectives, namely –

1. To assess the level of awareness of the WUAs regarding the concept and importance of PIM.
2. To assess the availability and quality of record-keeping being resorted to by the WUAs.

3. To study the role of WUAs in organising and managing the existing irrigation systems, with specific focus on the aspect of operation & maintenance (O&M).
4. To examine the operational issues involved in fulfilling the expected role to be performed by the WUAs as organisational intermediary between the U.P. Irrigation Department and the farmers.
5. To explore the extent to which WUAs are able to ensure equitable and regular supply of water, including reduction in cases of water disputes.
6. To identify the constraints faced by different entities in PIM and suggest suitable strategies for further improvement in operational and management aspects.

### COVERAGE AND SCOPE

The study envisaged to cover all the stakeholder groups involved with the implementation of the first phase of the U.P. Water Sector Restructuring Project (UPWSRP), as depicted below :

- 📌 Members of the Executive Committee/Management Committee of the Water User Associations (WUAs)
- 📌 General Body Members of the Water User Associations (WUAs)
- 📌 The Farmers/Cultivators within the catchment area of the Water User Associations (WUAs)
- 📌 Division-level Functionaries/Officers of the Irrigation Department, including members of the PIM Cells

### SAMPLE FOR STUDY

The sample for the study was drawn in close consultation with the programme managers at the Project Activity Core Team (PACT) institutionalized for the implementation of the UPWSR Project. In doing so, a total of **33 WUAs**, spread across **7 divisions** of **UPWSRP Phase-1** were covered during the course of the study.

### STUDY PARAMETERS AND APPROACH

The study was essentially diagnostic in nature and the information with regard to the study was collected with the help of a combination of research instruments, details of which have been presented below ----

#### [A]. PRIMARY DATA COLLECTION

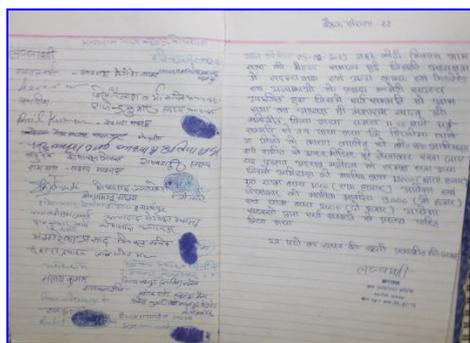
- ✚ **Individual In-depth Interviews (IDIs)** – IDIs were carried out to collect the requisite information from the members of the executive committees/management committees of the WUAs; general body members of the WUAs; and farmers/cultivators residing in the catchment areas of the WUAs selected for the study.
- ✚ **Focus Group Discussions (FGDs)** – The study also involved carrying out focus group discussions (FGDs) in each of the 33 minors selected for the purpose of the assessment. Thus a total of 33 FDGs were carried out during the course of the study.

During the course of the FGDs, it was our endeavour to ensure the participation of various categories in adequate numbers, with special focus on the farmers from the head, middle and tail reaches.

- ✦ **Interaction with Various Stakeholder Groups** – The study also involved detailed in-depth discussions with various functionaries responsible for the implementation of UPWSRP Phase-1 at the division levels, including – members of the PIM Cells institutionalized subsequent to the implementation of the U.P. PIM Act, 2009.

## **[B]. SECONDARY DATA VERIFICATION/STUDY**

During the course of the study, it was our endeavour to study the overall status of progress of the UPWSR Project in the Phase-1 areas. In doing so, the study also involved the physical verification and review of all possible records supposed to be maintained by the WUAs, including records/registers pertaining to the following –



- ✦ Meetings Register (*Baithak Karyavritt Register*)
- ✦ General Body (*Samanya Sabha*) Register
- ✦ Executive/Management Committee (*Prabandhan Samiti*) Register
- ✦ General Communication (*Baithak Sanbandhi Patrachar*) Register
- ✦ Lists/Registers/Reports related to Repair & Maintenance
- ✦ Gauge Register
- ✦ Documents related to Water Management (*Jal Prabandhan*), including – copies of rosters, warabandi and irrigation recording (*Seench Ankan*) undertaken by the WUAs.
- ✦ Documents related to Financial Management, including – cash books, cheque books, pass books, audit reports, etc.
- ✦ Administrative expenses (*Prashashnik Vyay*) register
- ✦ Water Dispute (*Sinchai Jal Apraadh*) Register
- ✦ Documents related to Departmental Co-ordination, such as – details of recent communication between WUAs and Irrigation Department; details of records provided by the Irrigation Department to the WUAs and the like.

## **REFERENCE PERIOD**

The reference period of the said study was from **April 2011** to **March 2013**. The activities assessed were beyond the period of Phase-1 and continuing up to the time of commencement of the second phase of the project.

## **DIAGNOSIS OF MAJOR ISSUES**

A snapshot of the major issues diagnosed during the course of the study have been presented hereunder ----

- ✦ A large proportion of the farming community in the UPWSRP Phase-1 areas has little idea about the concept of PIM and its intricacies.
- ✦ Very few meetings of the Executive Committee or General body are actually being organized at the field level.

✚ All decisions pertaining to the works/ activities to be taken-up are decided by the UPID officials and the same is conveyed to the WUA executive committee members – largely to the President and/or Secretary.

✚ Joint walk throughs are not taking place, although isolated cases do exist in certain areas. Even here the estimates are being prepared by the department officials.



✚ There appears to be a palpable gap between the department and the WUAs regarding the sharing of information on the irrigation rosters. In majority of the cases, even the village-level functionaries (such as ‘seenchpals and amins’) are unaware about the roster.

✚ There is irregular release of funds to WUAs for O&M.

✚ There is tail-end deprivation across all the divisions

✚ There was lack of coordination amongst WUAs and UPID.

✚ However due to the functioning of WUAs, there was reduction in water related disputes amongst farmers at outlet and minor levels and reduction in wastage of water as perceived by the farmers.

## **SUGGESTIONS & RECOMMENDATIONS**

In order to achieve the objectives and goals of any scheme/project, it is essential that its strengths are sustained and consolidated and that the shortcomings are minimized by way of appropriate and timely corrective actions and applying the lessons learned. The recommendations derived from the study findings have been presented below and are to be viewed in this context ----

1. It is imperative for the UPWSRP programme managers (at both the State and division levels) to undertake urgent measures for promoting the use of the electronic and print media, with a view to disseminate information about the scheme among the masses in the Phase-1 areas. At the same time, it might also be useful to design and conduct information dissemination seminars and workshops for the WUAs, as well as, the department officials (and most importantly the PIM Cell members) – as these often serve as potent platforms for spreading awareness among the target groups.

This is true especially with regard to issues such as the procedures and guidelines of the U.P. PIM Act and the intricate components associated with PIM – aspects that despite the obvious advantages of the print & electronic media – may not be easily internalized by the target audience.

2. Given the present status of PIM in the UPWSRP Phase-1 areas and the evidently non-receptive attitude of the functionaries of the department, it might be advisable to design and conduct specific training & capacity building programs for them. This might be of great use in generating a certain amount of sensitivity among them regarding the intricacies of participatory irrigation management on one hand and their own role towards the society that they serve.

3. Further, in light of the extremely low levels of enthusiasm and commitment on behalf of a large number of WUAs in the Phase-1 areas, it might be advisable to design a comprehensive plan of action for seeking the support of experienced local community based organizations for providing hand-holding and strengthening the capacities of the WUAs regarding various facets associated with PIM and specifically the U.P. PIM Act, 2009.



## 2. Change Management Workshop (4<sup>th</sup> and 5<sup>th</sup> December 2013)

### Rationale

It was observed that implementation of PIM in the State had been painfully slow and the core cause had been the departmental reluctance and resistance to this new idea. They fear this change might dilute their control and authority and therefore are not keen to promote the same. In light of the above and the experiences drawn from UPWSRP phase-I, it was felt that the launch of UPWRSP-II must be done with a sensitization workshop on Attitudinal & Behavior Change (ABC). This would motivate all senior officers in the department (UPID) to own this new paradigm of PIM and become supportive to much delayed irrigational reforms.



### Workshop Objectives

The key objectives of this two day workshop were :

- a. To orient senior officials of UPID about key features of PIM
- b. To communicate urgency/importance/benefits of PIM for the state
- c. To convince and motivate them to accept and facilitate this change
- d. To generate a vision for future role of UPID in support of farmers cause

The workshop was facilitated by Dr Gyan Pandey and his team, of Always Alive. It was Chaired by the Principal Secretary, UPID, Shri Suresh Chandra and the key note address was given by Shri V.B.Patel, Ex.Chairman of the Central Water Commission. Dr. Anju Gaur and Mr. Shankar Narayanan from the World Bank, New Delhi and Director, WALMI & Chief Engineer, PACT Mr. D.K. Dudeja also provided guidance during the workshop. More than 50 senior officers from UPID, PACT, WALMI and SIRD participated in the workshop wherein there were sessions on overview of PIM, philosophy of change, process of attitude and behavior change, transformational leadership and actualizing and sustaining change.



The Workshop was successful in providing orientation to the senior officials of the Uttar Pradesh Irrigation Department (UPID) about the key features of the PIM and Change Management, facilitating a shared vision the concept of PIM and generating a certain degree of appreciation among the senior officials/functionaries regarding the importance of PIM in the State.

## 3. Exposure Visits of Stakeholders

It was felt that exposure visits to successful PIM projects in other states must be conducted to sensitize the stakeholders towards PIM through farmer to farmer and officer to officer interactions. Gujarat and Madhya Pradesh are two pioneering states that have developed PIM successfully in some major and medium irrigation projects. Thus, a series of exposure visits were conducted for UPID officers as well as representatives from WUAs of Phase-1 to these States.

## Exposure Visit for Water Users Associations of Phase-1 to Gujarat and Madhya Pradesh

Sr. No.	Date	No. of Participants	No. of days.	Profile of Participants
1	19 <sup>th</sup> to 25 <sup>th</sup> November, 2013	26	7	Presidents, Secretaries, Treasurers and members of WUAs from minors of Chanda, Chilbila, Nagapur and Ateha distributory and related AEs from UPID.
2	19 <sup>th</sup> to 26 <sup>th</sup> March 2014 (only Gujarat)	27	8	Presidents, Secretaries, Treasurers and members of WUAs from minors of Bahrauli, Dharauli, Naseerabaad, Madfarpur, Chilbila, and Nagapur distributory.
<b>Total</b>		<b>53</b>	<b>15</b>	*****



The first batch of WUA representatives visited the canal site and interacted with the WUAs and canal officers of Man and Jobat projects in Madhya Pradesh. They were particularly keen to know the role of WUAs in operation and maintenance of canals and water distribution. They appreciated the fact that the WUAs had collected water charges inspite of it being free. Both the batches of WUA representatives visited the Dharoi project in Gujarat wherein they had an in-depth discussion on canal rehabilitation, record keeping and water distribution at the WUA and distributory level. They also studied the agriculture and dairy related activities carried out by the WUAs, Farmer Clubs, SHGs and the Producer Company.

The sharing of the experiences by participants of the exposure visits has led to increase in participation of farmers in WUAs, increase in confidence to carry out various activities such as preparation of budget, increased motivation to participate in meetings and a positive competitive spirit.

### Exposure visit for officers from UPID to Gujarat

Sr. No.	Date	No. of Participants	No of days	Profile of Participants
1	11 <sup>th</sup> to 14 <sup>th</sup> December, 2013	27	4	Superintending Engineers, Executive Engineers, Assistant Engineers from UPID and PIM Cell PACT and Joint Director, SIRD.
2	18 <sup>th</sup> to 21 December, 2013	33	4	Chief Engineers, Superintending Engineers, Executive Engineers, Assistant Engineers from UPID and PIM Cell PACT
3 & 4	17 <sup>th</sup> to 22 <sup>nd</sup> February, 2014 (Two batches)	52	6	Assistant Engineers and Junior Engineers from UPID
<b>Total</b>		<b>112</b>	<b>14</b>	



The officers visited the canal site and had intensive discussions with the WUAs and canal officers of Dharoi project of Gujarat. They asked them several questions regarding the role of WUAs in canal rehabilitation, O&M, water distribution, collection of water rates and imposition of fines. During discussions with the canal officers they were keen to know about how PIM had helped them in fulfilling their roles and responsibilities. Besides they also had interactions with WUA office bearers and Executive Engineer from Panam Irrigation Project in Gujarat, Man and Jobat project of M.P as well as Wagad Project of Maharashtra. The DSC team shared its rich experiences of community mobilizing and hand holding support to WUAs with the participants. During the concluding session, the officers had discussions on policy issues with Shri V.B.Patel retired Secretary, Water Resources Department, Government of Gujarat and Ex Chairman Central Water Commission and Shri O.T.Gulati, Retd Chief Engineer and Director, WALMI, Water Resources Department, Government of Gujarat .

#### 4. Development of Information, Education & Communication (IEC) Materials

Print and audio visual material such as posters, stickers, pamphlets etc are necessary for awareness generation, capacity building and training of the concerned stakeholders. During the meeting with World Bank and PACT team on 18th and 19th September 2013, it was decided that existing IEC material would be collected and reviewed and if

necessary, would be developed further as standard and uniform material. The Water and Land Management Institute (WALMI) and State Institute of Rural Development (SIRD) would help the SPT in developing the IEC materials by providing existing materials and technical support. The audio visual and print material developed by DSC over the years in Hindi will be appropriately modified as per the UP context and put to use. The SPT will be responsible for identifying the gaps and suggesting appropriate modifications and feedback to SIRD and WALMI so that they develop the master copies. However, later it was felt that the given the experience of the SPT, it would be advisable for it to develop the master copies and submit the same to PACT. Accordingly DSC and ARF with guidance from PACT developed the following IEC material in four colour and in simple, easy to understand Hindi:

- Posters and Panels on PIM and Agriculture
- Slogans on PIM, water management etc.
- Appeal to letter to farmers and WUAs on benefits of PIM.
- Booklet on Frequently Asked Questions by farmers.
- Hindi booklet of Sequential steps for Empowering Communities by Anil C Shah, Founder Chairman, DSC.



The IEC material developed by the Think Tank will be widely disseminated by SIRD in UPWSRP Phase -1 and Phase – 2 projects. These will also be prominently displayed in the field offices of PIM Cell and WUA offices at the Distributory level.

## 5. Development of Training Modules

In order to standardize the capacity building inputs to the WUAs in Uttar Pradesh, there was a need to develop training modules on various aspects of PIM. Accordingly, the Think Tank developed the following training modules:

1. Concept of PIM.
2. Operation and Maintenance of Canals by WUAs.
3. Irrigation Management by WUAs.
4. Financial Management by WUAs.
5. Agriculture and allied activities by WUAs.
6. Good Governance by WUAs .
7. Community mobilizing for WUAs.

Each of the above modules developed in Hindi cover the basic principles, steps, illustrations and do's and don'ts. Each module contains instructor's notes, power point presentations and main text developed in user friendly language with use of pictures and graphs for easy understanding. While the content is based on the UP PIM Act and PIM Manual, it also draws extensively from the rich experiences gained in promoting PIM and agriculture and allied activities in other states. These modules will be used by SIRD as well as the Think Tank to build the capacities of the WUAs, field officers of UPID as well as community mobilizers in Uttar Pradesh. Besides U.P these modules can be of considerable value to other states as well. These could be translated into different regional languages and somewhat modified as per the respective PIM Acts and Rules of different States.

## 6. Development of Model WUAs in Phase-1



One of the major activities envisaged for the SPT initiative was to provide hand-holding and capacity building support to select Water Users' Associations (WUAs) from the UPWSRP Phase-1 areas. The idea stemmed from the need to foster credibility among the farmers and also with the programme managers of the irrigation department. In doing so, efforts were made to build the capacities of the selected WUAs so as to enable them in taking decisions that make the institution more sustainable and self-evolving around a developed system.

Some of the basic parameters typifying a developed WUA were earmarked as follows ----

- Regular meetings of management committee, as well as the general body.
- Updated maintenance of canal.
- Performance of a more evolved level water management practices, including – water sharing arrangement/*warabandi*, rostering of outlets, rostering of minors, efficient & optimal use of water and conjunctive use of water.
- Attainment of financial autonomy, evident through the generation of non-government funds and generation of funds from the government.
- Evidence of equitable distribution of water.
- Evidence of autonomy in taking technical and financial decisions.
- Evidence of minimal canal offence.
- Implementation of activities through yearly budget of WUAs.

### THE PROCESS ADOPTED

As a part of the process of developing model WUAs in UPWSRP Phase-1, it was initially decided to select systems such as to include a Distributary along with its 3 Minors (one each from Head, Middle and Tail reaches).

Accordingly, in close consultation with the Divisions as well as the PACT Office, one system was selected from each of 6 Divisions – SSK-36 (Jaunpur), SSK-41 (Gauriganj),

SSK-45 (Rae Bareli), SSK-49 (Sultanpur) and ID- Sultanpur. On the other hand, 3 Distributaries and 21 Minors were selected from SSK-51 (Pratapgarh). Overall, 9 Distributaries and 39 Minors have been selected to be developed as Models.

### **SELECTION OF CANAL SYSTEM FOR MODEL WUA**

At the onset of the process of development of model WUAs, suitable canal systems were identified for being developed as Models. The Community Resource Persons (CRPs) were deployed by the DSC-ARF team – with the primary objective of establishing rapport with the Division level officers. With the help of the division level officers, two Distributary systems having better water supply were selected randomly.

The CRPs then contacted the respective WUA members of the Distributary to solicit their eagerness to participate in the programme for developing the Distributary as a model for the Project. The divisional officers of the UPID were contacted for selecting either of the two. Subsequently, one Distributary was selected from each of the six divisions and all the three in SSK-51, Pratapgarh. Three minors were selected from each of these selected Distributaries – one minor from head, middle and tail reaches.

### **FINALIZATION OF PARAMETERS FOR MODEL WUAs**

In order to define the characteristics of a Model WUA, standards needed to be set up by PACT. Draft parameters defining the Model WUA were discussed at a consultation of the State PIM Think-Tank (SPT) and the Project Activity Core Team on November 13, 2013 at the SPT office. Each of the parameters was deliberated upon and a final list was arrived upon. An initial draft of the criteria for a model WUA was defined by the State PIM Think-Tank and shared with PACT and subsequently, a joint exercise was carried out to finalize the parameters for the same.

In addition, a comprehensive plan of action was designed for the team of Community Resource Persons (CRPs) deployed by the SPT for facilitating the development of the WUAs into models.

### **REGULARISING MEETINGS OF THE WUAs**

Since the deployment of the 12-member field team, the first task delegated to them was to compile a list of all the members of the members of the Distributary level WUA. In close consultation with the Divisional Offices of UPID, a complete list of the members was obtained. At several places the same could not be accessed as the details have changed with time. This was the major activity of this period.

Also there had been changes in a few cases as well on account of the passing away of a former member. By contacting these members a complete list of the executive members was compiled. The contact details of each member was obtained from the concerned Division offices, were cross-verified by the Community Resource Persons (CRPs) deployed by the SPT.

One of the major facts that emerged during the course of the identification process was that no formal communication process was in existence between the Division level functionaries (including the PIM Cell members) and the WUA functionaries – leading thereby to a completely ineffective functioning of many of the WUAs.

As an initial exercise, the CRPs focused upon motivating the WUA Presidents to conduct regular meetings of the Management Committee, which must take place at least once a month. One of the most disappointing features emanating from this initial (but equally crucial) exercise was the fact that the WUAs were inactive in a large number of the cases. In many cases, even the members themselves had little idea that they were members of such a body and some did not know about the other members constituting the WUA.

After considerable efforts, the CRPs managed to organize the first meeting of the WUA Management Committees in the month of November-2013. The main issues that emerged during the WUA meetings have been summarized below :

- a. Most of the discussions prevailed around the de-silting of the canals so that they may deliver water in an optimal manner.
- b. Cutting of jungles was another aspect which was discussed at most of the meetings.
- c. Many of the actions regarding the repair and maintenance of the canal are done by the department without the knowledge of the WUAs, leave aside discussing or taking their permission. Sometimes even the Assistant Engineers, Junior Engineers, or the Seenchpals are not aware about actions on the canal. The members have hence lost interest in the WUAs as an institution. They expect to be informed and be involved in the discussions at the General Body Meetings so that there is not only transparency in operations, but also that people's participation in prioritizing the works.
- d. The status of Federated Minors is in a limbo, as there are no resources allocated for them. They are hence always in paucity of funds for Operation & Management.
- e. Payments for 'Watch & ward of canals' are not allocated in the budget. This role is assumed to be voluntary on the part of the WUAs, whereas previously, funds were allocated for this activity, when the works were carried out by the Division (UPID) and the Irrigation Department had paid on this account.
- f. The banks of the canal have been damaged at certain sections and needs immediate repair.
- g. The dates of meeting of the Executive Committee have been finalized and communicated to the respective Executive Engineers & respective Competent Canal Officers.
- h. Co-ordination between the Distributary level WUAs and the Minor level WUAs is poor. They feel that they are independent of each other. ARF is making efforts to bridge this gap through regularising the meetings and mobilizing the members to participate in the meetings.
- i. Gates of the some of the Minors are faulty (Jais, Ateha, Chhida, Kudaur, Naharpur heads). At some places there is a need for repair of culverts and embankments. The CCOs do not include these in works estimates. Even the damaged drops are not included in the estimates.
- j. At most of the places the members are not aware that the Office Bearers need to be re-elected after every 2 years. Most of the WUAs have completed 2 years and hence a re-elections of office bearers are required.
- k. Most of the members were not aware about the Walk-through along with the concerned Competent Canal Officer.

### **QUALITATIVE MONITORING OF MONTHLY MEETINGS**

Qualitative monitoring of any system results in far reaching results from the same amount of inputs. In light of this fact, it was decided to institutionalize a mechanism for close monitoring of the work of the Community Resource Persons (CRPs) through a panel of experts from DSC-ARF. Besides providing guidance to the field team on a case to case basis, the panel of experts was also provided with a mandate of undertaking regular visits for improving the quality of interventions at the field level.

Further, a regular follow-up mechanism was also developed with a view to facilitate a swift and optimal response to the queries of the WUA members during their monthly meetings.

### **EXPOSURE VISITS OF WUAs MEMBERS**

It is often said that 'seeing is believing'. When there is an exchange of views between the farmers of one place with another, they are likely to internalize the learning in a better fashion. In light of this fact, it was decided that some representatives of the WUAs from canals systems selected to be developed as models be sent on exposure visits to areas where the Participatory Irrigation Management is functioning well.

The States of Gujarat and Madhya Pradesh are acknowledged to be pioneers in promoting and developing the concept of PIM successfully across many major and minor irrigation projects. With consultation of PACT, it was decided that the participants of the exposure visit for the WUAs should be from areas having good irrigation records and also from areas which have been identified for development as model WUAs. Subsequently, the participants (farmers) were selected in close consultation with the respective UPID divisions on the basis of their ability to influence and sensitize other farmers of the area towards PIM.

It was decided that there would be two groups of farmers who would be sent for the exposure visits. The first batch of farmers was sent in the month of November 2013, while the second batch was sent in the month of March-2014. Appropriate reading reference materials were provided to the visiting participants in Hindi.

Upon their return, formal de-briefing session was conducted for both the groups at the SPT office based at Lucknow and in the presence of representatives from PACT. The focus of these sessions was to facilitate the participants to arrive at useful recommendations regarding the activities that may be taken-up in the context of Uttar Pradesh and the steps that warrant immediate action.

### **HOLDING REGULAR MEETINGS & PASSING OF RESOLUTIONS**

Getting fixed the dates of management committee meetings, actual occurrence of these meetings has been an achievement of the efforts of the SPT. Meetings are now being held on pre-decided dates and if there is any difficulty in arranging a particular meeting on a due date, it is rescheduled for another date with due notification.

Meetings cancelled for want of quorum are now postponed in accordance with the provisions stipulated for the same. The participation of the functionaries of the concerned divisions of the irrigation department however, still remains infrequent in most of these meetings. Inclusion of representation from categories mentioned in the U.P. PIM Act may be taken as a positive outcome of this exercise although a small number of WUAs are still lacking in this area.



### **REGULAR MONTHLY MEETINGS OF EXECUTIVE COMMITTEE**

General body meetings have gathered momentum. During initial interactions, the WUAs, especially at the Dy levels, raised an issue that the Dy's being more than 20 km long, many representatives often find it difficult to attend the general body meetings even if they are held at a central location. As a solution to this problem, the WUAs were encouraged to hold their respective general body meetings in three phases, that is – Head, Middle and Tail reach and following the same agenda. The decisions and subsequent actions may be taken keeping in mind the majority viewpoint. This

mechanism appears to be a workable suggestion and is expected to be adopted by majority of the WUAs in the near future.

Following the encouragement and support of the Community Resource Persons (CRPs), General Body meetings were conducted at Chilbila, Madafarpur, Naseerabad, Ateha and Bahrauly distributaries and at Alampur & Chhida minors.

### **WALK THROUGHS**

Walk through is an exercise that allows the WUAs to assess the quantum of work to be carried out on the canals in a transparent manner. Though the main clearance of canals is carried out before Rabi (as water from rivers during the monsoon season carries much silt) and walk through during that period is crucial. These walk-throughs also often serve as an exercise to assess other damages such as repair of pucca works, etc. and also act as a kind of training exercise for the WUAs.



Walk throughs have been carried out by almost all the WUAs selected to be developed as models (with the exception of SSK -49).

However, most of these walk-throughs witnessed extremely irregular participation on behalf of the irrigation department representatives. This absence of irrigation department officials often acts as a dampener to the enthusiasm of the WUAs and warrants immediate attention of the programme managers.

### **FORMATION OF SUB-COMMITTEES**

The PIM Act-2009 envisages formation of sub-committees to assist the managing committees mainly at the minor & distributary levels. During the course of our initial interactions with the WUAs, it was found that these sub committees were absent in majority of the divisions except SSK-51, Pratapgarh. Following sustained efforts of the Community Resource Persons (CRPs), the sub-committees have now been formed at all the minors selected to be developed as model WUAs.

### **BENCHMARKING OF WUAs**

To gauge the outcome of the efforts, it is necessary to have the present status of WUAs other than organizational view. For this purpose the following indicators have been earmarked for the WUAs selected for being developed as models, namely ----

- i. Running of canals according to rosters and in cases where the same is not conformed to, the proportion of divergence.
- ii. Increase or decrease in irrigation in ensuing period comparing to last ten years.
- iii. Increase or decrease in irrigation with respect to head, middle and tail of minors in comparison to last ten years.
- iv. Productivity per unit volume of water.

In order to establish a uniform system in light of the aforementioned indicators, the Community Resource Persons (CRPs) deployed by the SPT are presently actively engaged in facilitating the WUAs to procure the following essential documents, namely --

- a. Rosters of last 5-10 years;
- b. Actual running of canals in last 5-10 years;
- c. Irrigation recorded in last ten years;

- d. Break up of irrigated area of last ten years in Head, Middle & Tail reaches;
- e. Productivity of main crops shall be taken from agriculture department; and
- f. Jinsewar/Shobewar irrigation.

Satisfactory progress is taking place with regard to most documents, however procuring data of actual running of canal has been posing as the biggest challenge to both the CRPs as well as the WUAs. In most cases, the divisional officers are hardly aware of any such record and/or the location of such records. Wherever this information is available, it is found to be maintained in the form of gauge reading. There are very few instances where the record of actual running of discharge is being maintained. The gauges have to be converted into discharge using Gauge-Discharge tables after procuring the same from the divisions or from places where these are available.

Some divisions do not even have copy of the rosters of all ten years. These are procured from WUA offices or from the places where these were available.

**RECORDING OF IRRIGATION**

The process of irrigation recording was initiated across a number of WUAs selected to be developed as models – with Madafarpur Distributary, Chhida and Sarai Januari minor and Kataria Federated Minor taking the lead in this regard.



**REDUCTION IN WASTAGES & DISPUTES**

Once the process of WUA management committee meetings was streamlined, the next logical step involved focusing on conducting walk-through. The platform of the WUA management committee meetings was utilized by the CRPs deployed by the SPT to facilitate a deeper understanding and appreciation of the concept of walk-throughs to the committee members.

As a result of the persistent efforts of the CRPs, walk-throughs have been resumed by majority of the WUAs selected for being developed as models – although there is still a palpable

hesitation on the part of the functionaries of the divisions concerning the same. The divisions are participating in the same.



behalf of the functionaries of the divisions concerning the same.

In addition to the aspect of walk-throughs, the importance of curbing wastages was also conveyed to the WUAs and the results have indeed been worth mentioning – with a discernable reduction in the quantum of water offences. In situations where canal offences were reported, the WUAs have now started taking immediate action by removing the obstructions to the flows of the canals.

#### **PREPARATION OF ESTIMATES BY WUA EXECUTIVE COMMITTEE**

WUAs as an entity are conceived to be an independent & self sustained body. To achieve this goal, capacity of WUA has to be built in the way that it can accomplish all the tasks related to maintenance of canals. After 'Walk Through' Preparation of estimates is the next step before undertaking the repair/maintenance of canals.

Keeping the above fact in mind, it was our endeavour during this period to try and motivate the executive bodies of the WUAs to prepare their estimates on the basis of 'data' collected in walk throughs. The WUAs were assisted by the executives deployed in field by State PIM Think-Tank. The executives were trained for the purpose and were equipped with 'performance aids'. The executives were directed to paste the copy of performance aid in the register of WUAs. The effort succeeded and almost all the WUAs have submitted their estimates to concerned divisions either direct or through their respective distributary committee.

#### *Where We Are .....*

As mentioned previously, the task of selecting and facilitating certain WUAs in the UPWSRP Phase-1 areas was initiated by the State PIM Think-Tank (SPT) in the month of November, 2013. In doing so, a brief summary of the concrete achievements till July-2014 have been presented in the matrix given below :

- **Formalization of the lists of WUA members and internalization of the same by the concerned stakeholders.**
- **Representation of specific categories in the WUAs, including – women and representatives from the SC/ST category and the concerned Panchayati Raj Institution.**
- **Updation of all relevant record books mandatory for the WUAs.**
- **Holding of regular meetings of the WUA Management Committees on pre-scheduled dates.**
- **Holding of General Body meetings at all distributaries and one-fourth of WUAs.**
- **Formation of WUA Sub-Committees.**
- **Recording of Irrigation --- initiated by 3 WUAs.**
- **Conducting of Joint Walk-Throughs & Estimate Preparation.**

## 7. The Way Forward

### **Effective use of Information Education and Communication material**

Considerable Information Education and Communication material has been developed by the Think Tank it remains to be seen how it is used by SIRD and other agencies for promoting PIM in the State.

As indicated by the Chairman PACT and Principal Secretary, these should be disseminated on a large scale and prominently displayed in the field offices of the PIM Cell, UPID offices as well as WUAs at the distributory level. These should also be used for motivating farmers to effectively participate in the WUAs and maintenance of the canals.

### **Pre-testing of Training Modules**

The training modules with instructor's notes, power point presentations and reference material on seven major topics have been developed. These need to be pre-tested by WALMI, SIRD and the Think-Tank for further refinement. A separate training module for strengthening the PIM Cell also needs to be developed.

Given the large number of WUA functionaries as well as field officers that will be need to be trained, it may be advisable to identify proportionate number of competent and committed training institutes as well as resource persons that can provide need based and timely training. The training programmes especially for the office bearers of WUAs could be conducted at the field level training centres so as to reduce to and fro travel time.

### **Development of Model WUAs in Phase-1**

As indicated previously, while the hand-holding provided by the Community Mobilizers for one year has yielded certain encouraging results, this needs to be continued for another two-three years so that the WUAs can effectively manage the canals and also carry out agriculture and allied activities. From the experiences so far in providing handholding support to the WUAs in Phase -1, it is felt that there is need for timely resolution of issues emerging from the field by UPID.

The WUAs need financial and technical support from the Irrigation Department for repair and maintenance of canals and construction of field channels otherwise they would lose their confidence and momentum in the near future.

The UPID staff, especially PIM Cell should also be strengthened by providing them proper infrastructure and resources for communication and mobility so that they can provide timely support to the WUAs on regular basis. A special policy and incentive package for based on the learning from other States such as Gujarat and Madhya Pradesh could be considered for model WUA development.

\* \* \* \* \*