## STATUS OF PARTICIPATORY IRRIGATION MANAGEMENT (PIM) IN INDIA-POLICY INITIATIVES TAKEN AND EMERGING ISSUES

#### 1. Introduction

Since 1985 Ministry of Water Resources has been inspiring farmers' participation in water distribution and management of tertiary system in the projects covered under the Centrally Sponsored Command Area Development Programme. The concept of involvement of farmers in management of the irrigation system has been accepted as a policy of the Government of India and has been included in the National Water Policy adopted in 1987. Provisions made in the National Water Policy of 1987 were as under:

"Efforts should be made to involve farmers progressively in various aspects of management of irrigation systems, particularly in water distribution and collection of water rates. Assistance of voluntary agencies should be enlisted in educating the farmers in efficient water-use and water management."

In April 1987, the Ministry of Water Resources issued guidelines for farmers' participation in water management, primarily for areas under the Centrally Sponsored Command Area Development Programme. The guidelines covered all aspects like past experience in India and abroad, objectives of PIM, area of operation of farmers' associations in different irrigation schemes, duties and responsibilities of the farmers, training and monitoring.

Recognising the need to provide legal backup to PIM in the country, Ministry of Water Resources commissioned an NGO, 'Society for Peoples' Participation in Ecosystem Management (SOPPECOM)', Pune to suggest suitable amendments in the existing irrigation acts which could be recommended to States for incorporation in their State Irrigation Acts. 'SOPPECOM' has been in the forefront of work relating to PIM and has successfully pioneered many action research programmes on formation of WUAs. The suggestions of 'SOPPECOM' were circulated to States during June 1998.

Conferences at National, State and Project levels have been organized for creating awareness on Participatory Irrigation Management amongst farmers and officials.

Ministry of Water Resources has been organising National level training programmes on PIM in various parts of the country for CAD functionaries. In addition, matching grant is also being provided to States for organizing State and project level training programmes for farmers and field functionaries.

#### 2. Objectives of PIM

- i. To create a sense of ownership of water resources and the irrigation system among the users, so as to promote economy in water use and preservation of the system.
- ii. To improve service deliveries through better operation and maintenance.
- iii. To achieve optimum utilization of available resources through sophisticated deliveries, precisely as per crop needs.
- iv. To achieve equity in water distribution.
- v. To increase production per unit of water, where water is scarce and to increase production per unit of land where water is adequate.

- vi. To make best use of natural precipitation and ground water in conjunction with flow irrigation for increasing irrigation and cropping intensity.
- vii. To facilitate the users to have a choice of crops, cropping sequence, timing of water supply, period of supply and also frequency of supply, depending on soils, climate and other infrastructure facilities available in the commands such as roads, markets cold storages, etc., so as to maximize the incomes and returns.
- viii. To encourage collective and community responsibility on the farmers to collect water charges and payment to Irrigation Agency.
- ix. To create healthy atmosphere between the Irrigation Agency personnel and the users.

## 3. Necessity of PIM

The old dictum is that necessity is the mother of invention. This may be judged in respect of PIM also with the following considerations:

Need of increase in agricultural production: The human as well as bovine a) population has been increasing all over the world and more so in India. As such the need of food, fiber, fuel, fodder etc. has also been increasing with fast rate. It is, hence, imperative to increase the agricultural production to keep pace with the requirement. Irrigation being lifeline of agriculture, its development and meticulous management is the necessity of the day. All over the world and so in India, it is known that easy locations to tap surface water have almost exhausted. Increasing the existing reservoirs capacity and taking up of new projects is causing serious financial and social problems. So far as ground water development is concerned, it has its own limitations and the most important being over exploitation of this resource at many places particularly in many parts of India. Moreover financing is another constraint. Hence proper management of already created water resources development structures is extremely essential at this juncture, in order to strike the balance between need and the agricultural production. Since farmers are the real stakeholders, they have to come forward through their associations to look after their interest so that they get water from the system according to the predetermined time and space for planning their crops.

**b) Problem of fiscal availability:** There is severe budgetary competition at the government level under different sectors. The ratio of financial outlay for the irrigation sector to the total outlay is coming down year after year. Moreover there are many uncompleted irrigation projects, where work is going on and there is demand of meeting the regional balance to provide irrigation facility almost all over. Under such circumstances, investment of more money by the Government on operation and maintenance of the old system appears difficult. Thus, farmers have to take up this responsibility themselves in order to avoid over burdening of the Government exchequer and to become self-dependent.

c) O&M cost and recovery of irrigation charges: This aspect has already been discussed elsewhere which indicates that O&M cost is much higher than the recoverable irrigation charges as per present rate. Even these low rates are not being recovered in full. Often the cost of recovery of water charges by Government is more than the amount recovered. This is causing severe budget constraints to Government and consequently O&M could not be properly carried out resulting in system deficiency and unreliability of irrigation water to farmers. The Water Users' Associations could play this role in a better way.

**d) Other compulsions:** Besides above aspects, there are other compulsions like non availability of water when it is needed, taking immediate problems like leakages, adopting flexibility in water distribution and taking many more initiatives by farmers' group to make their farm economy a sustainable proposition, PIM appears extremely necessary and worthwhile.

# 4. Provision in National Water Policy (2002)

Following modifications were made in the National Water Policy (2002) regarding the participatory approach to water resources management:

"Management of the water resources for diverse uses should incorporate a participatory approach: by involving not only the various governmental agencies but also the users' and other stakeholders, in an effective and decisive manner, in various aspects of planning, design, development and management of the water resources schemes. Necessary legal and institutional changes should be made at various levels for the purpose, duly ensuring appropriate role for women. Water Users' Association and local bodies such as municipalities and Gram-Panchayats should particularly be involved in the operation, maintenance and management of water infrastructures/facilities at appropriate levels progressively, with a view to eventually transfer the management of such facilities to the user groups/local bodies"

# 5. Provisions in PIM Acts

Recognising the need for sound legal framework for PIM in the country, the Ministry brought out a model act to be adopted by the State Legislatures for enacting new irrigation acts/amending the existing irrigation acts for facilitating PIM. In accordance with the model act eight State Governments, namely, Andhra Pradesh, Goa, Madhya Pradesh, Karnataka, Orissa, Rajasthan, Tamil Nadu and Kerala have enacted new acts. The legal framework provides for creation of farmers organisations at different levels of irrigation system as under:

- a. <u>Water Users' Association (WUA)</u>: will have a delineated command area on a hydraulic basis, which shall be administratively viable. Generally a WUA would cover a group of outlets or a minor.
- b. **<u>Distributary Committee:</u>** will comprise of 5 or more WUAs. All the presidents of WUAs will comprise general body of the distributary committee.
- **c.** <u>**Project Committee:**</u> will be an apex committee of an irrigation system and presidents of the Distributary committees in the project area shall constitute general body of this committee.

The Associations at different levels are expected to be actively involved in: (i) maintenance of irrigation system in their area of operation; (ii) distribution of irrigation water to the beneficiary farmers as per the warabandi schedule; (iii) assisting the irrigation department in the preparation of water demand and collection of water charges; (iv) resolve disputes among the members and WUA; (v) monitoring flow of water in the irrigation system etc.

The functions of Water Users' Associations, Distributary Committees and Project Committees are given in detail in the **Annexure-1**.

# 6. Status of Enactment of Legislation for PIM

As a result of various conferences/ seminars organised by the Ministry, there has been an increased consciousness in States about the need for actively involving farmers in management of irrigation system. Accordingly States of Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Nagaland, Orissa, Rajasthan, Sikkim, Tamil Nadu and Uttar Pradesh have enacted exclusive legislations for involvement of farmers in irrigation management. Government of Bihar has issued a notification "The Bihar Irrigation, Flood Management and Drainage Rules, 2003", in exercise of the powers conferred by the Bihar Irrigation Act, 1997. Details of the Acts/Rules are given in **Table 1.** 

Sl.	Position of issue / amendment of Irrigation Act			
No.	State			
1.	Andhra	Enacted "Andhra Pradesh Farmers' Management of Irrigation		
	Pradesh	Systems Act, March, 1997"		
2.	Assam	The Assam Irrigation Water Users Act 2004		
3.	Bihar	"The Bihar Irrigation, Flood Management and Drainage Rules, 2003" under the Bihar irrigation Act, 1997		
4.	Chhattisgarh	Enacted "Chhattisgarh Sinchai Prabandhan Me Krishkon Ki Bhagidari Adhiniyam, 2006".		
5.	Goa	Enacted "Goa Command Area Development Act 1997 (Goa Act 27 of 1997)"		
6.	Gujarat	Gujarat Water Users Participation Management Act, 2007		
7.	Karnataka	Promulgated an Ordinance on 7 <sup>th</sup> June 2000 for amendment of the existing Karnataka Irrigation Act 1957.		
8.	Kerala	Enacted "The Kerala Irrigation and Water Conservation Act 2003".		
9.	Madhya	Enacted "Madhya Pradesh Sinchai Prabandhan Me Krishkon Ki		
	Pradesh	Bhagidari Adhiniyam, 1999" during September 1999.		
10.	Maharashtra	"The Maharashtra Management of Irrigation Systems by Farmers Act,2005"		
11.	Nagaland	Nagaland Farmers Participation in Management of Irrigation Systems Act, 2013		
12.	Orissa	Enacted "The Orissa Pani Panchayat Act, 2002".		
13.	Rajasthan	Passed the "Rajasthan Sinchai Pranali Ke Prabandh Me Krishkon Ki Sahabhagita Adhiniyam, 2000".		
14.	Sikkim	"Sikkim Irrigation Water Tax 2002" and "Sikkim Irrigation Water Tax (Amendment) Act 2008"		
15.	Tamil Nadu	Enacted the "Tamil Nadu Farmers' Management of Irrigation Systems Act, 2000".		
16.	Uttar Pradesh	Enacted the "Uttar Pradesh Irrigation Management Act, 2009"		

Table-1: State-wise Position of Enactment of New Act / Amendment of existing Irrigation Act

Governments of Punjab, Haryana and Manipur have drafted their PIM bills which are in the process of enactment. There is the likelihood of Arunachal Pradesh and Himachal Pradesh following the PRI Acts. Thus majority of States have decided to move towards PIM. The State-wise details of WUAs formed are given in the **Table 2.** 

SI. No.	Name Of State	Number Of	Area Covered
		WUAs Formed	(Thousand hectare)
1	Andhra Pradesh	10884	4179.25
2	Arunachal Pradesh	43	10.97
3	Assam	847	95.02
4	Bihar	80	209.47
5	Chattisgarh	1324	1244.56
6	Goa	84	9.54
7	Gujarat	8278	662.99
8	Harayana	8490	1616.27
9	Himachal Pradesh	1173	140.56
10	J & K	383	32.794
11	Jharkhand	0	0
12	Karnataka	2787	1418.66
13	Kerala	4398	191.22
14	Madhya Pradesh	2062	1999.64
15	Maharashtra	2959	1156.22
16	Manipur	69	29.4
17	Meghalaya	159	20.17
18	Mizoram	390	18.23
19	Nagaland	24	3.44
20	Orissa	20794	1757.71
21	Punjab	4845	610.29
22	Rajasthan	1994	1144.45
23	Sikkim	0	0
24	Tamil Nadu	1910	935.664
25	Telangana	0	0
26	Tripura	0	0
27	Uttar Pradesh	802	318.69
28	Uttrakhand	0	0
29	West Bengal	10000	37
	Total	84779	17842.208

# Table- 2: State-wise nos. of Water Users' Associations (WUAs) and area covered

# Say, 17.842 Million Hectares

Note:

The information above are on the basis of Compiled information received from State and compiled by AFC

# 7. Constraints in Implementation of PIM (Issues)

There may be a necessity and practicability in adoption of PIM yet there are a number of constraints in making the PIM sustainable in the long run. Some of these are:

a) Lack of legal back up and policy changes: In many States, there is no or very little legal back up and clear-cut policy decision at the Government level to take up PIM, which is a big impediment in implementation of PIM. For the actual irrigation management transfer and operation of PIM in an irrigation project, policy changes and legal back up are essential. This is important for distributing required quantity of water at minor / distributary take off points, taking up correction of system deficiency, claim to get the maintenance funds proportionate to its portion transferred to associations, collection of water charges and retaining some portion of it for WUAs functioning, fixation of water rates, incentives to farmers, resolution of conflicts etc. Clarity on legislation is also required in certain States.

**b)** System deficiency: In older projects, there are many problems like deterioration of old control and measuring structures, leakages and seepage at various places, erosion of banks and beds, siltation and weed infestation. These are serious problems, hindering farmers to take over the system management on technical and financial considerations.

c) Uncertainty of water availability: This is another important aspect, as farmers will understandably be reluctant to take on the responsibility for managing the system unless deliveries of water are made reliable, flexible, practical and responsive to need. The engineers on their part may not be confident about ensuring supply of the requisite quantity of water to the WUAs, as would be obligatory in terms of the MOU signed between Irrigation Agency and WUA.

Further, the farmers who have their holdings at the head of the canal tend to appropriate more water than required, whereas the farmers at the tail end often fail to get their apportioned share of water. Head-enders, therefore, have vested interest in continuing the existing arrangements. The tail-enders may not be keen to form WUAs as water supply in such areas remains inadequate and erratic and they remain apprehensive that the situation will not be materially altered if an association is formed. These differences in perceptions and conflicts of interests inhibit the coming together of head end and tail end farmers.

**d) Fear of financial viability:** Maintenance and operation of the system demands huge finances. Farmers have got the apprehension that in absence of surety of finance, it would be difficult for them to fulfill the requirement of funds for operation and maintenance. They feel that when Government is not able to handle the system with huge money available with them, how farmers would be able to do justice?

e) Lack of technical knowledge: Apart from the financial uncertainty, lack of technical input is one of the inhibiting factors to take over the system. When Government, having such qualified and senior Engineers, finds it difficult to manage the system, how untrained and uneducated farmers would be able to take up such a highly technical operation and maintenance work of big irrigation systems.

**f)** Lack of leadership: On account of limited exposure of the farmers to the rest of the world and PIM in particular, potent leadership is lacking, rather on account of limiting knowledge. At times so called local leaders give the negative or unclear version before other farmers

which further create misunderstanding among the farmers bringing them sometimes into a fix.

**g**) Lack of publicity and training: Seeing is believing; and knowledge brings confidence in people. This aspect is lacking and there is a constraint to adoption of PIM.

**h) Demographic diversity:** Due to variation in economic, ethnic, education levels etc. diversity of farmers, PIM is taking much time in this country. To handle this aspect deep study, analysis and solution need be found out.

**i) Mega irrigation projects:** World scenario gives an indication that there are smaller projects in the countries of the world, where irrigation project transfer has taken care for PIM. In India, there are huge projects having very large distribution system and culturable command area sometimes more than 20 lakh hectares. Larger the project, complex would be its maintenance, operation and management aspects and so the formation and functioning of farmers associations for different necessary activities.

**j**) **WUAs v/s Panchayats**: In many of the areas, where WUAs have been formed, there is a clash of interest among Panchayats and WUAs on who is to own the system, particularly when watershed schemes are being handed over to the Panchayats.

**k) PIM in efficient systems:** Some of the northern States have raised apprehensions that when their systems are running very efficiently, why not PIM should form an integral part of the system of distribution already in operation.

# 8. Future Prospects of PIM

It has now been realised that without active participation of beneficiaries, the irrigation systems cannot be managed efficiently. The experience shows that wherever farmers have been actively engaged, the overall management of irrigation system and the water use efficiency have significantly improved. The legal framework, which has been established in various States, will ensure systematic involvement of beneficiaries in the management of irrigation system at various levels. There has to be however, a provision for adequate financial support to these organizations to carry out their responsibilities. The PIM acts of various States do have provisions for the financial management of these associations. For example acts of Andhra Pradesh and Madhya Pradesh States mention that the funds of the farmers' organizations shall comprise of the following:

- i) grants and commission received from the State Government as a share of the water tax collected in the area of operation of the farmers' organization;
- ii) such other funds as may be granted by the state government and Central Government for the development of the area of operation;
- iii) resources raised from any financing agency for undertaking any economic development activities in its area of operation;
- iv) income from the properties and assets attached to the irrigation system;
- v) fees collected by the farmers' organization for the services rendered in better management of the irrigation system;
- vi) amounts received from any other sources; and
  - vii) investment of private sector in distribution and ancillary/extension services.

#### 9. Rationalisation of Water Rates

In several states the water rates have not been revised for a long time. Consequently the revenue collection is too meager to maintain the irrigation system. The Vaidyanathan Committee (1991) of the Planning Commission on pricing of irrigation water mentioned that on an average the revenue collection was Rs. 50 per ha as against the O&M requirement of Rs. 250 per ha. Thus, there is a dire need for rationalization of water rates so as to meet the expenditure on account of O&M of the system. Many of the States have already revised the water rates.

#### 10. Women's Role in PIM

Considering the importance of women in terms of their numerical strength and the significant contribution they make to the agriculture labour force, it is realized that they should play an important role in the WUAs. However, as the poor status profile and various other factors inhibit their participation, compulsory regulatory means are considered necessary to bring in the desired gender empowerment.

Recognising the scale at which PIM programme is to be implemented in the country, Government of India has given special emphasis on involving women in the process. In pursuance to the provisions in National Water Policy 1987 (and also 2002) on efforts to be made to involve farmers progressively in various aspects of management of irrigation systems, particularly in water distribution and collection of water rates, Ministry of Water Resources, while issuing guidelines in April, 1987, specifically emphasized the States to consider representation of women in the WUAs at all levels. Some of the State Governments have taken some initiative as under:

"Madhya Pradesh Sinchai Prabandhan Me Krishkon Ki Bhagidari Adhiniyam, 1999" enacted in September, 1999 ensures all farmers owners, be it men or women to be a rightful member of the outlet committee.

While "Andhra Pradesh Farmers' Management of Irrigation Systems Act" of March, 1997 has not made any specific provisions for the women to be represented in the Managing Committees of WUAs, it is encouraging to note that quite a few women members have been elected as Presidents and Managing committee members. Similar is the story in other states.

Despite the awareness in the matter, the marginal representation of women is not adequate in view of the magnitude of the problem.

#### 11. Importance of PIM under Restructured CADWM Programme

Under Restructured Command Area Development & Water Management Programme more emphasis is being given to participatory approach. Under this programme, payment of central assistance to States is linked with the formation of Water Users' Associations. Apart from this, farmers will have to contribute a minimum of 10% cost of the works in form of cash / labour in three components namely, construction of field channels, reclamation of water logged areas, and desilting and renovation of MI tanks.

Under the previous CAD Programme, a management subsidy at the rate of Rs. 275 per ha, to be paid in three years, had been insisted upon initially to encourage the formation and functioning of Farmers' Associations. It was increased to Rs. 500 per ha as one time functional grant to be shared by Centre, State and farmers at the rate of Rs 225:225:50 respectively. For projects included under the restructured programme, this grant is being

further enhanced to Rs. 600/- per ha. at the rate of 270:270:60 to be shared by Centre, State and farmers respectively. States have to bear similar costs for non – CADA projects.

Apart from normal training programme for field functionaries and farmers, action research for PIM is now proposed to be entrusted to the WALMIs and other State/Central Institutions. It is to ensure that farmers will be encouraged to form Water Users' Associations and take over the on-farm development works, equitable distribution of water, crop management, issues on revenue collection, to maintain data and financial records. They will also be trained regarding maintenance aspects of the OFD works. Centre will bear 75% of cost of these software items.

#### 12. PIM as A Thrust Area/Priority Item

With effect from August 2003 Participatory Irrigation Management (PIM) has been identified as one of the thrust areas for the country as a whole and its progress is being monitored by the Prime Minister's Office.

## 12.1 Issues for Policy Initiatives

- a. All states to be emphasized upon the need to enact PIM acts in a definite time frame
- b. Strengthening of financial resources of Farmers' Associations to make them viable Revenue sharing arrangement to be considered
- c. Rationalization of water charges
- d. Empowering women for a greater role in Irrigation Management.

## 12.2 Action Taken for Implementing PIM

Ministry of Water resources has written to all the States, which have not yet enacted relevant act to facilitate participation of stakeholders in Irrigation Management, asking them to implement the same. An indicative Roadmap as under has also been suggested for promotion of PIM to take a time bound action in the matter.

#### **Indicative Roadmap:**

- 1) Draft legislation on PIM and its approval by the State Legislature at the earliest, preferably in the next Session of the State Assembly.
- 2) Based on the PIM Act, prepare necessary Rules and Regulations within two months of the notification of the Act.
- 3) Organise State-wise orientation/awareness generation camps for functionaries of Irrigation/CAD Departments and farmers.
- 4) Formation of Water Users' Associations and entrust them the role and the responsibilities assigned under the Act.
- 5) Fix a target of covering at least 25% of the area of the major and medium irrigation projects under PIM during the X Plan.
- 6) Formation of an appropriate committee at the State level that will monitor the progress under PIM and interact with the Central Government.

Copies of the Model Act on PIM and also the PIM Acts of a few States were sent to the States/UTs for reference and guidance.

#### Milestones:

State Governments are being persuaded since 1985 to promote Participatory Irrigation Management (PIM). In order to facilitate the States in formulation of the roadmap for

promotion, enactment and implementation of PIM the following action points and milestones need be considered. Depending upon the status of the progress of implementation of the PIM in the States the action points may be suitably modified.

- 1. To constitute a Committee within the State to study the provisions of Model Act, PIM Acts of other States, Existing Irrigation Acts of States, Irrigation Water Cost Recovery Structure, and other Regulations of the States.
- 2. Preparation of Draft PIM Act (if not already done) by the State. In this regard the State may obtain help from WALMIs, NGOs or other State/Central organisations followed by the process of approval.
- 3. Awareness and motivation of the farmers in PIM activities. WALMIs can play major role in this activity. This activity of imparting awareness and motivating the farmers could be done simultaneously along with the other activities of implementation of PIM.
- 4. Preparation of draft rules and regulations in connection with identification of jurisdiction, formation, election, role and responsibility of WUAs and Irrigation departments/CADAs (if not already done).
- 5. The process of identification and notification of jurisdiction of each WUA, Minor / Distributary Committee for each Major, Medium and Minor Projects. This should be immediately followed by holding of elections of WUAs.
- 6. Necessary steps may be taken to repair the irrigation systems to be transferred to the farmers. In case of CAD projects, such steps are to be taken within the framework of Restructured CADWM Programme.
- 7. Signing of MoUs between the State Govt. and the WUAs for transfer of responsibility and the irrigation system. This could be done immediately after the necessary completion of repairs and the formation of WUAs.
- 8. Formation of an appropriate committee at the State level that will monitor the progress under PIM and interact with the Central Government
- 9. Monitoring and evaluation of the functioning of the system by the state Govt. for at least three years after handing over the system to the WUAs.

State have been pursued from time to time enact relevant Acts to facilitate participation of stakeholders in Irrigation Management, asking them to formulate a roadmap for furthering the implementation of PIM in their States in a time bound manner and keep the Ministry informed of the progress of the same. It is also requested to furnish the latest information on the status of implementation of PIM / formation of Water Users' Associations in their States.

#### **13.** Monitoring and Evaluation

Regular monitoring and evaluation of the performance of the WUAs is necessary for development of the PIM programme in the country. The success and failure of the WUAs at one place could provide useful lessons and enable taking up of corrective steps in formation and sustainability of WUAs at other places. The performance has to be justified against the objectives laid down and the financial viability.

States have to constitute a State level committee for monitoring of the implementation of the PIM programme. WALMIs can play an important role in implementation, monitoring and evaluation of the PIM programme. Recently Central Water Commission has been entrusted with coordination and monitoring of implementation of PIM in the States/UTs at the Central level.

MoWR has written to all the States and UTs, which are yet to take action to enact legislation on PIM, asking them to take necessary time bound action for enacting necessary legislation for PIM.

As per the guidelines under the restructured CADWM Programme, State level committees have to be formed for review and monitoring of the CAD projects under the programme. These committees have to have representation from Water Users' Associations at project level.

## Functions of farmers' organizations at different levels

#### 1. Water Users' Association

The Water Users' Association shall perform the following functions namely:

- (a) to prepare and implement a warabandi schedule for each irrigation season, consistent with the operational plan, based upon the entitlement, area, soil and cropping pattern as approved by the distributary committee, or as the case may be, the project committee;
- (b) to prepare a plan for the maintenance of irrigation system in the area of its operation at the end of each crop season and carry out the maintenance works of both distributary system and minor and field drains in its area of operation with the funds of the association from time to time;
- (c) to regulate the use of water among the various pipe outlets under its area of operation according to the warabandi schedule of the system;
- (d) to promote economy in the use of water allocated;
- (e) to assist the revenue department in the preparation of demand and collection of water rates;
- (f) to maintain a register of landholders as published by the revenue department;
- (g) to prepare and maintain a register of co-opted members;
- (h) to prepare and maintain an inventory of the irrigation system within the area of operation;
- (i) to monitor flow of water for irrigation;
- (j) to resolve the disputes, if any, between the members and water users in its area of operation;
- (k) to raise resources;
- (l) to maintain accounts;
- (m) to cause annual audit of its accounts;
- (n) to assist in the conduct of elections to the managing committee;
- (o) to maintain other records as may be prescribed;
- (p) to abide by the decisions of the distributory and project committees;
- (q) to conduct general body meetings as may be prescribed;
- (r) to encourage avenue plantation on canal bunds and tank bunds by leasing such bunds;
- (s) to conduct regular water budgeting and also to conduct periodical social audit, as may be prescribed;
- (t) to encourage modernization of agriculture in its area of operation; and
- (u) to maintain the feeder channels of minor irrigation tanks by the respective water users associations, in the manner prescribed;

# 2. Distributary Committee:

The distributary committee shall perform the following functions namely:

- (a) to prepare an operational plan based on its entitlement, area, soil, cropping pattern at the beginning of each irrigation season, consistent with the operational plan prepared by the project committee;
- (b) to prepare a plan for the maintenance of both distributaries and medium drains within its area of operation at the end of each crop seasons and execute the maintenance works with the funds of the committee from time to time.
- (c) to regulate the use of water among the various water users associations under its area of operation;
- (d) to resolve disputes, if any, between the water users associations in its area of operation;
- (e) to maintain a register of water users associations in its area of operation;
- (f) maintain an inventory of the irrigation system in the area of its operation, including drains;
- (g) to promote economy in the use of water allocated;
- (h) to maintain accounts;
- (i) to cause annual audit;
- (j) to maintain other records as may be prescribed;
- (k) to monitor the flow of water for irrigation;
- (l) to conduct general body meetings as may be prescribed;
- (m) to abide by the decisions of the project committee;
- (n) to cause regular water budgeting and also the periodical social audit as may be prescribed;
- (o) to assist in the conduct of elections to the managing committee;
- (p) to encourage avenue plantations in its area of operation; and
- (q) to encourage modernisation of agriculture in its area of operation.

#### 3. Project Committee:

The project committee shall perform the following functions namely:

- (a) to approve an operational plan based on its entitlement, area, soil, cropping pattern as prepared by the competent authority in respect of the entire project area at the beginning of each irrigation season;
- (b) to approve a plan for the maintenance of irrigation system including the major drains within its area of operation at the end of each crop season and execute the maintenance work with the funds of the committee from time to time;
- (c) to maintain a list of the distributory committees and water users' associations in its area of operation;
- (d) to maintain an inventory of the distributary and drainage systems in its area of operation;

- (e) to resolve disputes if any, between the distributory committees;
- (f) to promote economy in the use of water;
- (g) to maintain accounts;
- (h) to cause annual audit of its accounts;
- (i) to maintain other records as may be prescribed;
- (j) to conduct general body meetings as may be prescribed;
- (k) to cause regular water budgeting and also the periodical social audit as may be prescribed;
- (l) to encourage avenue plantation in its area of operation; and
- (m) to encourage modernization of agriculture in its area of operation.