

## **Progress of Pani Panchayat in Odisha**

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**Abstract** - The impact of new institutions in participatory water management such as Pani Panchayat (PP) in Odisha give a useful insight into equity and access to water, transfer of property rights and handling water conflicts. Odisha is a relatively high water resource endowed state in India that has experienced some recent policy changes that have shifted water management and irrigation system from government departments to farmer's organizations under WUA. During the 1990s, the state demonstrated massive interest in farmers' participation in water and the Odisha Integrated Irrigated Agriculture. The structure of the PP is a multi-tiered system, with user-stakeholders representing at different levels. However, state continues to retain the power to supervise the functioning of the entire system. Performance of PP, which is a part of the irrigation system, largely depends on the nature of their coordination with higher level institutions and state agencies. Pani Panchayat is self-sustaining and is to be supported by the payments from its beneficiaries and members.

**Key Words**- Irrigation, Management, Pani Panchayat, Water Users Associations,

### **I. Introduction**

Efficient management of water resources and sustainable development are the key to economic growth and poverty alleviation. In India about 70 per cent of the population is dependent on agriculture and about 83 per cent of the water is utilized for irrigation at present. India is making efforts to address various challenges in water sector through an integrated approach. Participatory Irrigation Management (PIM) through Irrigation Management Transfer to farmers has been officially recognized as the most appropriate mechanism to bring about efficient utilization and equitable distribution of irrigation water. Ministry of Water Resources (Government of India) and state departments are putting a lot of emphasis on this reform process. As a result thousands of Water Users' Associations (WUAs) have been formed in many states of India. 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. The Government of Odisha adopted a similar policy of PIM in its state water policy of 1994 which emphasizes transfer of irrigation management to farmers.

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## II. State-wise Water Users Associations in India

After introduction of Five Year Plan by Govt. of India in 1951, attempts were made for rapid harnessing of water resources and much emphasis was laid to accelerate their irrigation potential creation. Many major, medium and minor irrigation projects have been constructed in the state during last six decades, thereby increasing net irrigation potential from 1.83 lakh hectares in 1951 to 30.89 lakh hectares in 2012. In Uttar Pradesh, Maharashtra, and Odisha, membership in the WUA is mandatory for water users.

**Table-1** Number and coverage of state Water Users Associations (Area in '000ha)

State	Number of WUAs Formed	Area covered
Andhra Pradesh	10800	4169.00
Arunachal Pradesh	39	9.02
Assam	720	47.04
Bihar	46	147.76
Chhatisgarh	1324	1244.56
Goa	57	7.01
Gujarat	576	96.68
Haryana	2800	200.00
Himachal Pradesh	876	35.00
J&K	1	1.00
Karnataka	2515	1295.19
Kerala	4126	25527
Madhya Pradesh	1687	1691.80
Maharashtra	1539	667.00
Manipur	73	49.27
Meghalaya	123	16.45
Nagaland	23	3.15
Odisha	16196	1537.92
Punjab	957	116.95
Rajasthan	506	619.65
Tamil Nadu	1310	787.96
Uttar Pradesh	245	121.21
West Bengal	10000	37.00
Total	56539	13155.89

Source: Ministry of Water Resources, Government of India, 2008.

In Andhra Pradesh and Odisha political support from the party in power has resulted in more than ten thousand WUAs being formed with the target to cover the entire irrigated command area under PIM within a couple of years. Odisha has the highest number of WUAs under the PIM program followed by Andhra Pradesh, Madhya Pradesh and Karnatak (Table-2). Odisha has 16196 PaniPanchayats which is highest compared to all states in India. Andhra Pradesh has 10800 and West Bengal has 10,000 WUA in the country.

### **III. Evolution of PaniPanchayat(PP) in Odisha**

On the basis of this State Water Policy, the Government of Odisha with a view to providing equitable, timely and assured irrigation has introduced the concept of PaniPanchayat based on the PIM. Thus, the first step made in this process of reformation was to hand over a part of the network of the canal system/irrigation system for its operation and maintenance (O&M) to the farmers or the beneficiaries through the Pani Panchayats (Water User Associations or WUAs). Pani Panchayat programme has been implemented in the state of Odisha since 1996. Recognizing the need for systematic involvement and participation of farmers in irrigation management, initially 33 irrigation projects were covered under the Odisha Water Resources Consolidation Project (OWRCP) funded by World Bank. Four Pilot Projects in the first phase namely, Ghodahad Project, Rushikulya Distributary No.11 of Ganjam District and Aunli and Derjang Projects in Anugul District were identified for this work during 1996 and related activities of Pani Panchayat started simultaneously in the projects. The major functions of the WUAs are to operate and maintain the distributary/minor canals, to ensure equitable water distribution among the WUA members, to advise the department on main system operation and ultimately with gaining experience to collect irrigation fees in due course. In OWRCP area the implementation of FOT programme has been entrusted to Water and Land Management Institute, Command Area Development Authority, Nabakrushna Choudhury Centre for Development Studies (an Indian Council of Social Science Research Centre) and some local Non-Governmental Organizations.

Since 2000 Pani Panchayat scheme has been implemented by the personnel of Department of Water Resources in non-OWRCP areas as well. After a lot of experiment this Pani Panchayat programme was enacted by the Odisha Legislative Assembly and was assented to by the Governor on the 25 June 2002. The Odisha Pani Panchayat Act, 2002, is an Act to provide for farmers participation in the management of irrigation systems and for matters connected therewith or incidental there to (Pani Panchayat Act, 2002). The Pani Panchayats (WUAs) are registered as legal bodies to provide the required identity. Later,

the geographical extent of the programme covers the entire State comprising of about 16.00 lakh hectares of Major, Medium & Minor Irrigation Command Areas in all the 30 districts of Odisha (Department of Water Resources, Government of Odisha, 2001).

**Table-2 : Status of Pani Panchayat in Odisha(in ha.)**

Si No	Name of Pani Panchayat	Proposed Pani Panchayats		Area covered	
		Number	Irrigated area	Number	Irrigated area
1	Major & Medium	2563	11.25	1864	7.87
2	Minor	1883	3.28	1883	3.26
3	Lift	17826	3.95	17773	3.93
	Total	22272	18.48	21520	15.06

Source- Pani Panchayat Samachar, September, 2013

Table -2 reveals that there are 22272 numbers of Irrigation Projects proposed in September 2013 to be covered under Pani Panchayat. The number of major and medium irrigation projects are 2563, Minor irrigation projects are 1883 and the Lift irrigation projects are 17826. The total irrigated area covered under Pani Panchayat is 18.48 ha. But actually, total irrigated area covered under Pani Panchayat are 15.06 from 21520 irrigation projects.

Zone wise Pani Panchayat in Odisha are shown in table-3.

**Table-3 Zone Wise Status of Pani Panchayat in Odisha, September, 2013**

SI	Name of zone	Total Irrigated area		Ayacut PP		Handover PP		Rest PP	
		No of pp	Area in hectare	No of pp	Area in hectare	No of pp	Area in hectare	No of pp	Area in hectare
1	Eastern zone Cuttack	426	191231	426	191231	255	103572	395	191231
2	Central Irrigation zone	334	155629	334	155050	277	124898	299	155629
3	Drainage zone, Cuttack	31	11960	31	11960	17	7285	2	11960
4	Angul irrigation zone	59	24713	53	21901	53	21901	34	24713

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5	Rengali irrigation zone Kamakhya nagar	45	19535	45	19535	9	3784	16	21820
6	Rengali & ECF zone	27	12478	27	12478	0	0	6	10193
7	Northern irrigation zone Salapada	217	98790	217	98790	209	93931	65	98790
8	Subarnarekha irrigation zone Baripada	14	5532	14	5532	0	0	6	5532
9	Baripada irrigation zone	77	34834	77	34834	41	20288	9	34834
10	Southern irrigation zone Berhampur	328	150870	328	150870	270	123254	219	151870
11	Western irrigation zone Bhawani patna	80	35051	80	35051	80	35051	80	35051
12	Upper kolab irrigation zone	97	44500	97	44500	35	14806	97	44500
13	Upper Indrabati irrigation zone mukhuguda	208	74141	208	74141	208	74141	212	74141

14	Chief civil engineer poteru project	203	64816	203	64816	203	64816	203	604816
15	Hirakud dam zone Burla	373	179825	373	179825	163	78476	122	79825
16	Bolangir irrigation zone	44	21096	44	21096	44	21096	44	21096
	<b>TOTAL</b>	<b>2563</b>	<b>1125000</b>	<b>2557</b>	<b>1121585</b>	<b>1864</b>	<b>787236</b>	<b>1710</b>	<b>1125000</b>
17	Central minor irrigation zone	451	76973	451	76973	451	74513	451	76973
18	KBK minor irrigation zone	362	68139	362	68139	362	68139	362	68139
19	Northern minor irrigation zone	615	110781	615	110781	615	110781	615	110781
20	Southern minor irrigation zone	455	72398	455	72398	455	72398	455	72398
	<b>TOTAL</b>	<b>1883</b>	<b>328291</b>	<b>1883</b>	<b>328291</b>	<b>1883</b>	<b>325831</b>	<b>1883</b>	<b>328291</b>
21	Odisha Lift irrigation Zone	17826	394760	17727	391047	17773	393907	15168	342475
	<b>TOTAL</b>	<b>22272</b>	<b>1848051</b>	<b>22169</b>	<b>1840923</b>	<b>21520</b>	<b>1506974</b>	<b>18761</b>	<b>1795766</b>

Source- Pani Panchayat Samachar, September, 2013

There are 21 Irrigation Zones in Odisha. They are divided into Major, Medium, minor and lift Irrigation Projects. There are 16 Irrigation projects under Eastern, Central and western irrigation zone. The total number of Pani Panchayats under this zone is 2563 and total irrigated area under this zone is 1125000 hectares. Total number of Ayacut Pani Panchayats is 2557 and 1121585 hectares of area are irrigated. Similarly the total

number of handover Pani Panchayats are 1864 and 787236 hectare area are irrigated. There are 1710 numbers of Rest Pani Panchayats and the total irrigated area under this project are 1125000 hectares. There are 4 minor irrigation zones in Odisha, which are central minor irrigation zone, KBK minor irrigation zone, Northern and Southern Minor irrigation zone. The total number of Pani Panchayat under these zones is 1883 and 328291 hectares areas are irrigated. Another irrigation zone called Odisha Lift Irrigation Zone which includes 17826 numbers of Pani Panchayats and the total area irrigated in this project are 394760 hectare. The total numbers of Hand over Pani Panchayat are 21520 and area irrigated are 1506974 hectare. Similarly the numbers of rest Pani Panchayats are 18761 and total irrigated areas under this project are 1795766 hectare.

#### **IV. Conclusion**

Pani Panchayat as regulatory institutions in charge of water distribution on equitable basis, their performance has been reasonably weak and unsuccessful. Even though Pani Panchayat has been initiated and endorsed in Odisha for more than a couple of years, the acceptance of the model have been lethargic and scattered. A detailed action plan should be prepared in consultation with the water users through Participatory Rural Appraisal method. PP is not in the interest of the people. There are so many constraints like selfishness, illiteracy, no interest due to big landowners, which hinder for the improvement of PP. Therefore the Government should review its decision of making the availability of irrigation water conditions to the formation of PP. Many registration actions of PP are complex and long, raising the costs of participation for the farmers. Simpler procedures are needed that still provide the PP organisations with sufficient legal standing to deal with government agencies, contract with private firms, contractors, and control resources within the group. There must also be mechanisms to ensure that the benefits of the project are equally distributed to all concerned stakeholders. The farmer's lack technical scheme and financial resource to restore the system to design standard without which efficient distribution and use of water will not be possible. However training and motivation can go a long way in capacity building and making the scheme successful.

For equitable, economic and judicious use of canal water in particular and efficient Irrigation Water Management in general, Participatory Irrigation Management (PIM) is a must. For PIM to be a reality, attitudinal changes of farmers and concerned Government Department Officers/Employees are necessary. An Attitudinal change is a very slow process. Efficient use of water, diversification of cropping pattern, increased cropping intensity; increased productivity, improved income level of farmers, improved

cost recovery etc. are major benefits of PIM. In order to accomplish these benefits, legal support of State Acts, Rules and handbooks/Manuals for field workers are required. An integrated approach is necessary for enhancing rural livelihood through improved irrigation management. Its success depends upon the progressive attitude of the farmers dedication of the officials of the department political will and co-operation with various departments of the Government. Massive awareness campaign capacity building through training workshops, interactive workshops are to be conducted at regular intervals for the farmers, office bearers of Pani Panchayats and officials concerned departments for managing the problems of irrigation to increase agricultural productivity.

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