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FUNCTIONING OF WATER USERS ASSOCIATIONS IN UNITED ANDHRA PRADESH – A STUDY

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ABSTRACT: -

Water is a scarce and precious national resource to planned, developed, conserved and managed as such, and on an integrated and environmentally sound basis, keeping in view the socio-economic aspects and needs of the State. It is one of the most



crucial elements in developmental planning of country. As the country has entered the 21st century, efforts to develop, conserve, utilize and manage this important resource in a sustainable manner, have to be guided by the national perspective. Water being the most vital input for supporting life and sustaining socio-economic

development of country, the policies and strategies impinge on large section of the society. People's participation and awareness therefore plays pivotal role in formulation and implantation of the various measures for sustainable use of water. The issues and challenges facing the country of water resources sector are many and need urgent attention of National Water Policy 1987 and 2002, calls for development and management of water resources in a holistic and integrated manner encompassing various sectoral needs through, a participatory approach.

KEYWORDS: Tank irrigation and status of Mission Kakatiya.

INTRODUCTION :

In this manner the united Andhra Pradesh government has enacted a separate Act called as Andhra Pradesh Farmers Management of Irrigation System (APFMIS Act) in 1997 and the farmers / beneficiaries are involved or associate in the identification of water resources taking decision making, mobilization of financial resources and implementation of programmes / schemes as per the provisions of the Act. The APFMIS Act 1997 is in operation for the last one and a half decades in the State. In this act under which a structure of farmer's organizations have been created for all irrigation systems in the state 10,292 water users associations were constituted and elections were held in June, 1997 to bring into office democratically elected managing committees of these water users associations. Further, 172 distributary committee for the major projects in the state have also been constituted and elections were held in November 1997. Again elections were conducted to WUA in two spells i.e. 2004 and 2005 in the state. In the first spell elections were held in about 60 percent of the districts in late 2004. In the balance of the areas, elections were postponed due to severe drought and general/assembly and parliament elections. However second spell of elections were held in the rest of the areas in two batches, the first April 2005 and the second in January 2006. The last election to WUA were conducted in united Andhra Pradesh 2008, subsequent election to be conducted in the year 2010, Now 10,748 WUAs are reported in united Andhra Pradesh.

OBJECTIVES OF THE STUDY:

The present study is undertaken with the following objectives: To study the water users associations in united Andhra Pradesh; To examine the objectives and organizational structure of Water Users Association in united Andhra Pradesh; To know the perception of office bearers and farmers of water user associations; To analyze the implementation of the Act and its impacts on the agricultural production and socio-economic conditions of the farmers; To provide suitable suggestions and recommendation to improve the existing system.

METHODOLOGY:

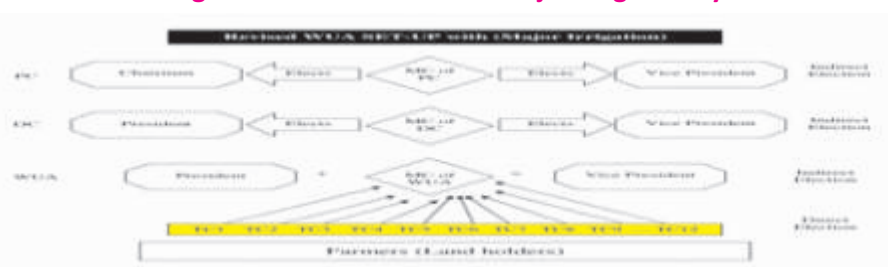
The present study is confined to study the functioning of Water Users Association in the management of water resources in Warangal district, united Andhra Pradesh. For this purpose WUAs which are operating under major, medium and minor irrigation projects located in Warangal district, Telangana region would be selected. The study is not only aim at finding out the sense of accountability water users associations in managing the water resources but also to assess their status and functioning. The study, therefore, is essentially a survey investigation to find out the extent to which the water user associations are doing justice to the farmers and other stakeholders. For purpose of eliciting the opinion of the respondent's questionnaire method will be employed to collect the relevant data.

The study employed both primary and secondary sources for collecting relevant data on related to the subject. Further it also employed informal discussions and focused group discussion methods to elicit the opinions of the respondents and other stakeholders on the functions of WUAs. The WUAs and respondents are selected by giving weight age to the type of irrigation projects i.e major, medium and minor irrigation projects. As total of 25 WUAs were selected for understanding the study from across the Telangana region. 06 WUAs under major irrigation (i.e canal) at Hasnaparthi distributory under SRSP-Stage-1 project, 05 WUAs under medium irrigation (i.e canal irrigation) in Ramappa project at Venkatapur mandal, and 14 WUAs are selected under minor irrigation (i.e Tanks) in Hanamkonda mandal. These WUAs are selected from head, middle and tail areas of respective projects. The study selected 150 respondents (i.e 36, 30 and 84 are selected representing major, medium and minor projects, respectively.) The respondents include WUA committee members 75 and normal farmers 75. Separate structured questionnaires were served to both the office bearers and farmer of WUAs to collect their opinions and perceptions on the policy, performance, water management, finance, and functioning of water users association.

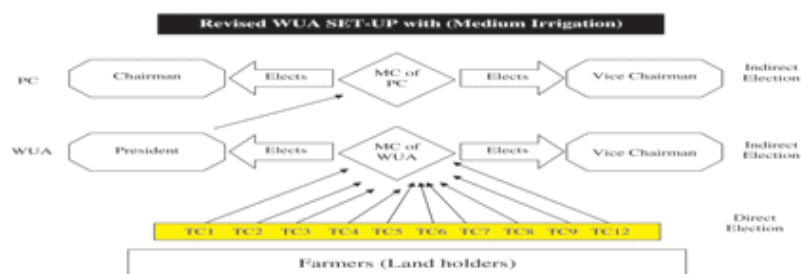
Organizational Structure of WUAs in United State of Andhra Pradesh:

The structure of the Water Users Association (WUA) depends on the size of irrigation system In case of minor irrigation system it will be a single-tier organization, in medium irrigation projects it will be two-tier, and in major projects it will have a three-tier system. The below given table shows clear picture on the Organizational structure of Water Users Associations in united state of Andhra Pradesh, see below.

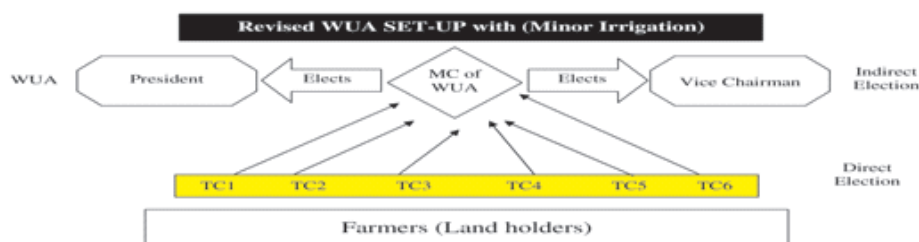
WUAs Organizational Structure of Major Irrigation System



WUAs Organizational Structure of Medium Irrigation System



WUAs Organizational Structure of Minor Irrigation System



Sources: I&CADA, Government of United state Andhra Pradesh, Hyderabad.

PROCESS OF FORMATION OF WATER USER ASSOCIATION:

The APFMIS Act forms the legal basis for the formation of a WUA in the State of Andhra Pradesh. Detailed rules have been separately notified for the delineation, notification and functioning of the WUA. The process of formation of a WUA is relatively simple and entails the following steps:

1. Delineation of a Water Users Association: The area proposed to be constituted into a Water Users Association is delineated by the irrigation agency, under an irrigation project either in full or in part depending on the irrigation system. In the case of a minor irrigation tank, the area could be as low as 60 ha to a maximum of 2000 ha. In the case of major irrigation scheme it could be on the average be about 1,500 to 3,000 ha. While delineating natural and administrative boundaries are preserved as far as possible. Delineation is done on a hydraulic basis.

2. Notification of a WUA: The District Collector of the District in which the WUA is located notifies the proposed Water Users Association in the District Gazette and calls for objections. After hearing the objections, a final notification is made in the District Gazette and the Water Users Association is constituted. Along with the Water Users Association, law notifies a competent authority to the water user association. The competent authority provides technical advice to the Water Users Association and assists in the technical supervision of the works undertaken by the Water Users Association.

3. Elections to the WUA: The Commissioner Command Area Development Authority (CADA) is the authority who notifies the process of election to the Water Users Association. The District Collector of the district concerned issues the election notification. The process of election starts with the following sub processes.

a. Preparation of electoral rolls: All the members of a Water Users Association who use water and pay water tax as recorded in the revenue records (Adangal) and who are 18 years and above are the voters of a Water Users Association. The electoral rolls are prepared territorial constituency wise listed against each survey number (a basis for the land holdings in a village). The voter's list is then issued village wise.

b. Calling for nominations: The district collector issues a schedule for calling for nominations of interested candidates for the post of President and Managing committee of the territorial constituency. A period for the scrutiny and withdrawal of nominations is specified in the election schedule and final list of contesting

candidates is put up on the notice board.

c. Election Process: On the specified date, the elections are conducted. Each voter casts his vote. The candidate securing the maximum number of votes is declared the winner. In some cases, the elections may be unanimous. The consensus candidate is then declared as the winner. The winner is administered an oath and handed over the election certificate. The elected Managing Committee members then elect the President of the Water Users Association among themselves.

d. Setting up of the WUA office: The Water Users Association notifies a place as its office and the work begins for a period of six years the tenure of the WUA. Where a vacancy arises due to the death or resignation of a Water Users Association President or a member, the district collector similarly fills up the vacancy after following a similar process. However, every two years the term of one third of the members expires, who are then replaced through elections.

e. Election Disputes: Where a dispute arises in the election of a member, the aggrieved could redress in the District Civil Court as an election dispute. All the District Civil Courts have been designated as the election tribunals for the purpose of the election disputes.

5. WUA to have Bank Account: Each Water Users Association or a DC has a separate bank account. The president and a member are the signatories to the bank account.

The total number of major, medium and minor irrigation Water Users Associations constituted region wise and district wise in united Andhra Pradesh. In the year of 2010 are given (See table 1 & 2).

Table-1 Region wise Water Users Associations in Andhra Pradesh and Telangana

Sl.No	Region	Major	Medium	Minor	Total
1	Telangana Region	601	166	3923	4690
2	Rayala seem Region	245	62	1252	1559
3	Andhra Region	1405	182	2905	4499
	Total	2261	410	8077	10748

Source: I&CAD, Govt. of Andhra Pradesh, and Indian NPIM at New Delhi (7-8, Nov 2014)

The tables 1 and 2 indicate about the total number of the district and region wise Water Users Associations in Andhra Pradesh. The total numbers of WUAs are 10,748. Out of that 4690 (43.63 per cent) WUA are in Telangana region, 1559 (14.50 per cent) WUAs in Rayalaseema region and remaining 4,499 (41.85 per cent) WUAs are in Andhra region. It shows that there were more number of WUAs in Telangana region when compared to Rayalaseema and Andhra region.

Table-2 District wise Number of Water Users Associations in United State of Andhra Pradesh.

Sl.No	Name of District	Major	Medium	Minor	Total
I	Telangana Region				
1	Adilabad	33	38	261	332
2	Khammam	79	38	381	498
3	Karimnagar	163	18	494	675
4	Mahabubnagar	39	5	520	564
5	Medak	0	14	544	558
6	Nalgonda	116	9	596	721
7	Nizamabad	85	16	285	386
8	Ranga Reddy	0	5	184	189
9	Warangal	86	23	658	767
Sub-	Total	601	166	3923	4690
II	Rayala Seema Region				
1	Ananthapur	48	22	305	375
2	Chittoor	0	12	572	584
3	Kadapa	78	16	217	311
4	Kurnool	119	12	158	289
Sub-	Total	245	62	1252	1559
III	Andhra Region				
1	Krishna	308	12	274	594
2	Guntur	389	0	64	463
3	East Godavari	182	17	218	417
4	Nellore	92	43	630	765
5	Prakasham	165	24	300	489
6	Srikakulam	100	6	417	520*
7	Visakhapatnam	16	18	332	366
8	Vizianagaram	4	49	444	497
9	West Godavari	149	13	226	388
Sub-	Total	1405	182	2905	4499
	Grand Total	2261	410	8077	10748

Source: I&CAD, Govt of Andhra Pradesh, and Indian NPIM at New Delhi (7-8, Nov 2014)

OBJECTIVES OF THE WATER USERS ASSOCIATIONS:

The objects of the water users association shall be to promote and secure distribution of water among its users, adequate maintenance of the irrigation system, efficient and economical utilization of water to optimize agricultural production, to protect the environment, and to ensure ecological balance by involving the farmers inculcating a sense of ownership of the irrigation system in accordance with the water budget and the operational plan.

In order that the farmer's organizations function effectively and carry out the aims and objectives as envisaged under the Act, these rules relate to the conduct of elections and the internal management of the farmers organizations and all matters connected with and incidental thereto. At present the united state Andhra Pradesh divided in two states i.e. Andhra Pradesh and Telangana State. It is the time that to examine the impact of the Act and functioning of Water Users Associations (WUAs) in the management of water and increase the agricultural productivity. This would enable us to highlight the strengths and weakness of the Act and WUAs and judge whether this approach holds good in future plans.

The present study is a modest attempt in that direction of four parts i.e. Part-I reveals that the existing literature. Part- II Discuss the socio-economic background of the WUAs. Part-III Analysis of data collected. Part-IV opinions and suggestion of the field study.

Part-I

The present part give the review of existing literature on the literature in Water Resource Management and Water User Associations in united Andhra Pradesh reveals that research studies on Water Resource Management and Water User Association in India are very few in number in general and related to in particular.

Though, they have contributed greatly towards the applied part of the present study. The studies paid little attention towards research on water resource management and Water User Association in united Andhra Pradesh and the studies related to the functioning of Water User Association in united Andhra Pradesh are very meager. Hence, there is a need for a specific study on the functioning of Water User Association in united State Andhra Pradesh, which this study tries to fulfill to some extent.

Part-II

The present part give clear picture of socio-economic background of the WUA respondents, they are WUA body or committee (i.e. president, vice-president and TC members) and farmers (i.e. Beneficiaries) of the Water Users Associations explains that, most of them are middle and young age, literates coming from the backward, forward class, scheduled castes, and scheduled tribes. Further, it also indicates that they are continues to be in the nuclear family system having own house with RCC building. Majority of them are in the agriculturist. Most of the WUA committee members and farmers (i.e. Beneficiaries) of Water Users Associations belong to small farmers categories i.e., they are having 2 ½ acres to 5 acres. Whereas the marginal farmer's posses 1acre to 21/2 acres. According to table-3 total two cropping season in a year, 68 per cent of respondent are cultivating paddy/cotton, 61 per cent are cultivating paddy, 16 per cent vegetable, 13 per cent cotton, 13 per cent paddy/cotton/jowar, 11 per cent jowar, 9 per cent of respondent are cultivating chilly, and remaining 8 percent are cultivating paddy/cotton/jawer and chilly in a year. Source of the irrigation, most of the respondents are depending tube wells tanks 20 per cent and tank/ dug well 15 per cent of irrigation sources. (See table-3).

Table-3 Socio-economic back ground of WUA Respondents i.e., WUA committee member and farmers i.e Beneficiaries

Age particulars of the Respondents

I	Age	WUA committee members	Per cent	farmers (i.e. Beneficiaries)	Per cent
1	18-30	5	7	3	4
2	31-50	55	73	53	71
3	51& above	15	20	19	25
	Sub total	75	100	75	100

Caste particulars of the Respondents

II	Caste	WUA committee members	Per cent	farmers (i.e. Beneficiaries)	Per cent
1	SCs	10	13	13	17
2	STs	6	8	04	6
3	BCs	45	60	48	64
4	FCs	14	19	10	13
	Sub total	75	100	75	100

Nature of family of the Respondents

III	Nature of family	WUA committee members	Per cent	farmers (i.e. Beneficiaries)	Per cent
1	Nuclear Family	60	80	55	73
2	Joint Family	15	20	20	27
	Sub total	75	100	75	100

Educational Status of the Respondents

IV	Education	WUA committee members	Per cent	farmers (i.e. Beneficiaries)	Per cent
1	Illiterate	10	13	17	23
2	1 -5 class	13	17	9	12
3	6 – 10 class	34	45	34	45
4	Intermediate	14	19	10	13
5	Degree and above	4	6	5	7
	Sub total	75	100	75	100

Occupational status of the Respondents

V	Occupation	WUA committee members	Per cent	farmers (i.e. Beneficiaries)	Per cent
1	Agriculture	55	73	59	79
2	Agriculture Lab our	10	13	10	13
3	Employee Govt /Private	Nill	Nill	3	4
4	Political	8	11	-	-
5	Business	2	3	3	4
	Sub total	75	100	75	100

Income level of the Respondents

VI	Income	WUA committee members	Per cent	farmers (i.e. Beneficiaries)	Per cent
1	Below 50,000 Rs	Nil	Nil	10	13
2	50,001 to 1,00,000	5	7	10	13
3	1,00,001 to 1,50,000	6	8	5	8
4	1,50,001 to 2,00,000	12	16	10	13
5	2,00,001 and above	52	69	40	53
	Sub total	75	100	75	100

Land Holdings of the Respondents

VII	Land Holdings	WUA committee members	Per cent	farmers (i.e. Beneficiaries)	Per cent
1	Marginal Farmer (1 to 2 1/2 Acres)	15	20	27	36
2	Small Farmer (2 1/2 to 5 acres)	30	40	21	28
3	Semi – Farmer (5 to 10 acres)	27	36	15	20
4	Medium Farmer (10 to 25 acres)	3	4	10	13
5	Large or Big Farmer (25 acres above)	Nil	Nil	2	3
	Sub total	75	100	75	100

Cropping Pattern of the Respondents

VIII	Sessions	Cropping Pattern							
		Paddy	Cotton	Jawar	Chilly	Vegetables	P/Co	P/Co/J	P/Co/J/ Ch
1	Kharif	27(36)	6(8)	Nil	4(5)	2(3)	27(36)	7(9)	2(3)
2	Rabi	19(25)	4(5)	8(11)	3(4)	10(13)	24(32)	3(4)	4(5)
	Total Crops%	46(61)	10(13)	8(11)	7(9)	12(16)	51(68)	10(13)	6(8)

*P-Paddy, Co-Cotton, J-Jowar, Ch-Chilies, Veg-Vegetable,

Sources of Irrigation of the Respondents

XI	Sources of Irrigation	WUA committee members	Per cent	farmers (i.e. Beneficiaries)	Per cent
1	Canals	8	11	8	11
2	Tanks	6	8	10	13
3	Dug wells	4	5	2	3
4	Tube wells	6	8	2	3
5	Canals/Dug wells	4	5	3	4
6	Tanks/Dug wells	11	15	12	16
7	Tube wells/Tanks	15	20	10	13
8	Canals/Tanks	4	5	10	13
9	Canals/Tanks/Tube wells	2	3	5	7
10	Tanks/Dug wells/ Tube wells	6	8	3	4
11	Canals/Tanks/Tube wells/Dug wells	3	4	6	8
12	Other sources	6	8	4	5
	Sub total	75	100	75	100

Sources: Field Study of United Andhra Pradesh.

Part-III

The present part the analysis of the opinions of the WUA committee members and farmers (i.e. Beneficiaries) respondents on water user associations are that the elections were being conducted properly and they were participating in the elections, and the meetings were being conducted regularly. Regarding the operations and management of Water Users Association they opined that formation of subcommittee of the WUAs was discharging its duties and they were maintaining records properly. Further, disputes regarding discharging of the water they opined that they were solving their problems at field level itself. Further, warabandi systems (to equal distribution of irrigation water) were not continued, supervision of water supplies at all stages. Determination of water plan at tail end areas and adopting new methods of irrigation water management is not done etc. Further they are mobilizing financial resources from the government and collecting the taxes from the farmers and all the financial matters are being discussed by the farmers. The social auditing report is also being not implemented. Finally almost all the respondents opined that they are aware of the APFMIS Act 1997.

In the light of the field study; To set up the effective functioning of water users associations to a large extent depend on the conduct of regular elections; formation of sub-committee of WUAs to look after the activations of the associations; fair and proper distribution of water among the members; implementation of warabani (to equal distribution of irrigation water) system, giving priority to the tail end areas in the distribution of water; release of government grants budget on time to the associations; imparting training to the farmers on the use of water and other inputs for enhancing the production; rationalization of water distributory committees; diversification of crops, particularly from paddy to commercial crops, which require less water for

raising the crops and generate more income to the farmers; autonomy to the WUAs to maintain field channels; organize field enquiry trips to the farmers particularly to the village/areas where the WUA is /are functioning more effectively; linking of canals with village tanks; promotion of ID crops; etc. However, the analysis also unfolds that political interference in the WUAs elections; domination of large farmers in the distribution of water to all the farmers particularly to the tail end farmers; shortage of water in the reservoir/tanks due to the scanty and irregular rainfall; delay in releasing the water to the fields for cultivation; drainage of canals/tanks by few individuals/farmers; lack of proper involvement of officials in guiding the Water Users Association; etc collectively contribute to the ineffective functioning of the associations.

Part-IV

The present part to suggest the better functioning of the WUA committee members and farmers (i.e. Beneficiaries) respondents expressed the following suggestions, To strengthen the functioning of Water Users Associations there are: Conduct regular elections as per APFMIS Act 1997; Release of government grant on time in each of the financial year; Provide the training to the farmers and Territorial Consistency members; Rationalize of distributory committee powers; Gram panchayat was taking maintained of the WUAs offices; To give salaries to office bearers; To give rehabilitation works to WUA; Diversification of crops in paddy area through water users association as collective activity need to be undertaken on experimental basis; For paddy crop the water resource departments should assess the water charges by area as well as volumetric basis; and it should be levied which are less; Preparatory tillage activity in paddy area should be tested on experimental basis as a case study by undertaking collective activities; Technical guidance for maintenance and repairs of field channels should be given to WUAs; There should be flexibility while deciding chairperson from amongst the farmers; The reservation for chairperson of WUAs from SC & ST communities should be made on the basis of women farmers' provision to become chairperson; The training programmes on wide area should be organized Examples should be given on record keeping; The water users association should follow less crop water requirement with high value crops in the command area; Visit to successful WUAs should be organized; Monitoring and evaluation of WUAs should be critically followed.

Farmers must be trained in villages; the possible way is grouping farmers in WUAs into a smaller groups and train them using local resource persons. A number of WUA members have already trained. They may appropriately used in future to transfer skill, knowledge and WUA operations. Department should play an important role in facilitating local capacity building. They need to identify and involve trained people in the local capacity building. It is not enough to train farmers. There is thus a need to involve GP members, Secretary and revenue members. Cooperation between them is needed as there is no proper collection system. The capacities built should also be correlated to the impact developing appropriate indicators. The functioning of WUAs as proved to be an innovative organizational arrangement.

Therefore, the State Government and authorities' concerned need to pay adequate attention to strengthen the WUAs at the grass-root level, so as to enable them to be model indicatives for implementation of the developmental programmes in the state or elsewhere in the country.

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