



# **Andhra Pradesh Integrated Irrigation and Agriculture Transformation Project (APIIATP)**

## **ENVIRONMENT AND SOCIAL MANAGEMENT FRAMEWORK: VOLUME II – STAND ALONE DOCUMENT – 7 TRIBAL PEOPLE’S PLANNING FRAMEWORK**

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# **Andhra Pradesh Integrated Irrigation and Agriculture Transformation Project (APIIATP)**

## **ESMF VOLUME II – STAND ALONE DOCUMENT – 7**

### **TRIBAL PEOPLE’S PLANNING FRAMEWORK**

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# TRIBAL PEOPLE’S PLANNING FRAMEWORK

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## Section 1: Project Introduction

### Overview of the Study

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Andhra Pradesh (AP) has a long tradition of tank based irrigation and farmers for years have been dependent on the elaborate systems of tanks for irrigating agricultural lands. The state has about 40000 minor irrigation sources spread over the thirteen districts. The geographical area of the state is about 402.7 lakh acres out of which the total cultivable area is around 19.9 Million acres. Out of this irrigation potential is created for 103 lakh acres through the existing major, medium and minor irrigation projects. The performance of the tanks system however witnessed a decline in the past two decades due to a variety of factors including heavy siltation in tank bed and inflow channels, growing forests, damages in sluices, field channels and bunds weirs etc.

The Government of AP (GoAP) with support from the World Bank implemented the Andhra Pradesh Community Based Tank Management Project (APCBTMP) during 2007-2016 with an objective of improving agricultural productivity and building capacities of Water User’s Associations (WUAs) to manage tanks effectively. During the course of implementation of the APCBTMP there was a realization of the need for development of more holistic interventions which aimed not only to improve productivity of crops but also maximize returns by reducing gaps in supply and demand chain. A specific need to focus on interventions that disseminated and facilitated adoption of technology by farmers, created awareness on quality standards, organized farmers and promoted collective sale and purchase of inputs and produce was identified during the course of this project.

It is in this context that the *Andhra Pradesh Integrated Irrigation Agriculture Transformation Project (APIIATP)* has been conceptualized by the World Bank and GoAP. The project adopts a holistic and synergized approach that seeks integration across relevant stakeholders of selected minor irrigation tanks across the state under different agro climatic zones.

The *Project Development Objective* of APIIATP is to *enhance agricultural productivity, profitability and resilience to climate variability in selected tank systems of Andhra Pradesh*. In line with the “Transformation” objective, the project aims to promote inclusive rural growth, develop and disseminate new agricultural and water management technologies, climate resilient agriculture, enhance market linkages for small and marginal farmers and improve water and natural resource management. The proposed project will have positive impacts in terms of environmental protection and reduced greenhouse gas emissions by disseminating high efficiency irrigation systems and promoting diversification to pulses and high value crops which would significantly reduce water and carbon footprints.

## Project Components

The proposed project activities have been categorized into four main components as illustrated in Exhibit 1 and summarized in subsequent paragraphs (WRD, GoAP 2016)

### ***Component A: Improving Irrigated Agriculture***

#### ***Efficiency at Farm Level***

This component would improve tank-based minor irrigation to strengthen the integrated farming system (in which growing crops, agro-forestry and rearing livestock co-exist) with reduced water footprints. It will consist of three inter-related sub-components: (i) improving tank system performance and resilience; (ii) inflow hydrology management for improving water productivity and efficiency; and (iii) building synergy with the Primary Sector Mission (Agriculture, Fishery, Horticulture, Livestock and Irrigation).

### ***Component B: Promoting Adaptive Sustainable Agriculture Practices***

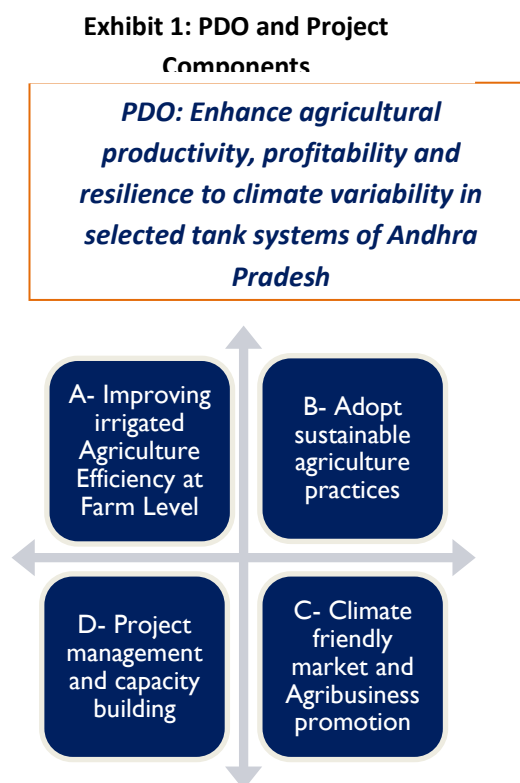
This component would improve production and productivity of the tank systems and increase returns to farmers and other water users through better market linkages and promotion of agribusiness. This component will have two sub-components: (i) climate smart diversified agriculture production systems; and (ii) climate-friendly market and agribusiness promotion.

### ***Component C: Climate-friendly Market and Agribusiness Promotion***

This sub-component will aim at reducing the ‘road miles’ of goods and services, by bringing producers and consumers closer for locally produced goods and services by reviving/enhancing local farmers’ markets and developing alternate marketing channels to improve farm level post-harvest management and value addition. The project will support development of farmer producer organizations/companies anchored in water user associations and facilitate public-private partnerships to enable direct buying arrangements at the local level.

### ***Component D: Project Management and Capacity Building***

The objective of this component is to ensure smooth implementation of project activities, as well as monitoring of and learning from project processes and outputs. The project is designed with an expectation of coordination between four important Departments, i.e., Water Resources, Agriculture, Horticulture, Ground Water, and Fisheries.



## **Project Preparation**

As a part of the project preparation, a number of advisory and analytical studies were undertaken. One of them—social and environmental assessment-- relates to identifying and addressing environment and social issues. The assessments enabled in identifying, and assessing key issues, and subsequently draw environmental and social management measures to address them. It is expected that the measures will result in enhanced tank systems performance and resilience, improving irrigation efficiency, inflow hydrology management, improving productivity, adapting sustainable agriculture practices, innovative and technology transfer for fisheries production and agri-business development. To fructify this, the project has prepared an environmental and social management framework (ESMF) and associated Management Plans.

The Environmental and Social Management Framework (ESMF) approach is adopted as the selection of tanks and the nature and extent of interventions will become explicit over time, as and when they are selected. The environmental and social management frameworks for the specific identified investments will guide the interventions to ensure that the project activities do not cause any harm, are in compliance with the applicable national and local regulations, as well as World Bank safeguards policies. These will also ensure that potential adverse impacts are adequately mitigated and potential benefits of the project are enhanced to improve effectiveness and sustainability of the project. Relevant portions of the frameworks are suitably integrated with project contract documents to facilitate smooth implementation during the rehabilitation and operation phases. The ESMF approach has been adopted as the selection of tanks and nature / extent of investments/ interventions will become explicit over time, as and when the tanks are selected.

## **Social Assessment**

Andhra Pradesh is an ethnically diverse state with a diverse set of languages, traditions and practices. The set of beneficiaries who would be covered under the project is not homogenous and comprises of a number of sub-groups who can be identified based on their differential endowment, gender, ethnicity, different economic groups and other regional features. There are a number of stakeholder groups who would exert varying degrees of influence on the project and impact project activities. In this context it becomes important for the project to develop a framework that would enable participation of all stakeholder groups and solicit their contributions towards project design and delivery mechanisms.

A social assessment was undertaken in order to help identify key stakeholder groups and evince their expectations/ issues/ concerns and draw measures to reach each of the sub groups effectively. The were drawn such as to ensure inclusion of deprived segments, equity in accessing project benefits, strengthening decentralised governance system as per constitutional norms and ensuring gender based integration in project execution process.

The social assessment enabled the following:

- Mapping project stakeholders and conducting detailed stakeholder consultations
- Assessing social impacts of proposed project interventions

- Reviewing and suggesting legal, policy and institutional aspects to enable accomplishment of project objectives
- Developing measures to enhance positive impacts and mitigate negative impacts if any

Broad elements of the social assessment included beneficiary assessment, stakeholder analysis, social impacts, institutional assessment and risk analysis. The assessment was carried out in consistence with GoI, GoAP and the World Bank safeguard requirements, policies, regulations and guidelines. One of the key social management instruments emanating from this is the Tribal Peoples Planning Framework (TPPF).

## **Need for Tribal People’s Planning Framework**

Inclusive growth is the essence of developmental strategy across the economies. Since the introduction of economic reforms in early nineties, there has been greater focus on development and planning towards enhancement of human well-being and reduction in inequalities along with growth of per capita income especially targeting vulnerable social groups, viz. Scheduled Tribes (STs), Scheduled Castes (SCs) etc.<sup>1</sup>

STs are amongst the most marginalised and vulnerable segments of the society. The Constitution of India provides safeguard with regard to their traditions, socio-cultural practices and governance mechanisms etc. Any development project or intervention is required to adhere to principles that protect the interests of these groups.

A Tribal People’s Planning Framework (TPPF) is necessary in order to address issues faced by tribals and focus on inclusive growth with includes tribal development. The project components and its indicators will as such not have an adverse impact on the tribal population. Rather, the project will be beneficial to them in terms of improving their skill base in areas such as climate resilient agricultural practices and agri-business promotion. Despite this, attention is still required, within the scope of the project, based on their current status of development and in order to meet the safeguard provisions that are constitutionally provisioned for tribals. The TPPF has been prepared in accordance with the World Bank’s Operational Policy (OP) 4.10 on indigenous peoples as well as legal provisions of Government of India and Government of Andhra Pradesh. The objectives of the TPPF are to ensure that tribals are adequately and fully consulted prior and during the course of the project; receive benefits and compensation equal to that of the mainstream population; are provided with special assistance as per laws and policies because of their vulnerabilities; and receive adequate protection against adverse impacts of the project on their cultural identities.

## **Report Structure**

### **Section 1: Project Introduction**

The first section of this report defined the basic project objective of the Andhra Pradesh Integrated Irrigation Agriculture Transformation Project and described the project components, Further, it stated the project objectives and the basic features of the social assessment which has been conducted for the tanks spread across 12 project districts of

<sup>1</sup><https://tribal.nic.in/ST/StatisticalProfileofSTs2013.pdf>

APIIATP. This was followed by a discussion on the need for a Tribal People’s Planning Framework as part of this project.

## **Section 2: Tribal Scenario in Andhra Pradesh**

The second section provides basic information on the tribal scenario in Andhra Pradesh including demographic data on the ST population in Andhra Pradesh. It also provides information on the Scheduled Areas and list of Notified Scheduled Tribes in Andhra Pradesh.

## **Section 3: Baseline Findings and Observations**

This section provides primary information and analysis of data collected in the three tribal project tanks visited by a team of experts during the course of the assignment. It describes the participation and co-option of tribal people in Water User Association and various meetings. It also lists the issues identified and inferences drawn from the field study.

## **Section 4: Legal and Institutional Framework**

This section primarily deals with the findings from the desk review of various policies and schemes for tribal development established by Government of India and Government of Andhra Pradesh. Further, it discusses the applicable Operational Policies of the World Bank.

## **Section 5: Stakeholder Analysis**

A stakeholder analysis has been undertaken to identify the issues and the concerns of the stakeholders who are supposed to be directly or indirectly impacted/benefited by the project or assume a position wherein they can have a significant role to play in project implementation. It identifies direct and indirect stakeholders at various levels and also lists their expectations from the project followed by major findings from the consultations.

## **Section 6: Tribal People’s Planning Framework**

Tribal People’s Planning Framework has been developed to maintain inclusion of vulnerable groups of the society and ensure their participation and development through the proposed project minimising any adverse impacts. This section discusses the objective of having a Tribal People’s Planning Framework and the strategy behind this. Further it provides a Tribal Inclusion Approach and Tribal Development and Inclusion Framework.

## **Section 7: Implementation and Institutional Arrangement**

Proper implementation and institutional arrangements are essential for the project to be effectively implemented. This section details the institutional arrangements, Monitoring and Evaluation structure and the Grievance Redressal Mechanism for the project with a focus on the tribal population.

## Section 2: Tribal Scenario in Andhra Pradesh

### Defining “Tribals”

The term “Indigenous People” or “Tribal People” is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees:

- Self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- Collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- Customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- An indigenous language, often different from the official language of the country or region.

The term ‘Scheduled Tribe’ is defined in Article 366 (25) of Indian constitution as “such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this Constitution”.

<sup>2</sup>Article 342 prescribes the procedure to be followed in the matter of specification of Scheduled Tribes. The criteria followed for specification of a community as a Scheduled Tribe, as per Ministry of Tribal Affairs, Government of India include:

- Indications of primitive traits
- Distinctive culture
- Geographical isolation
- Shyness of contact with the community at large, and
- Backwardness

### Distribution of ST Population in Andhra Pradesh

Andhra Pradesh (AP) is the tenth largest state in India with a population of 49.4 Million (4.08% of India’s population) and a population density of 304 persons per Sq. Km. There are 126.65 Lakh households in the state and the average size of the household is 3.95. AP is largely rural with 70.42% of the population living in rural areas and 29.58% living in urban areas.<sup>3</sup>Tribal population aggregates to 0.25 million (about 6% of the total). While tribals are spread across the state, Visakhapatnam has the largest concentration of with 14.42% of the total, and the least in Kurnool with 2.04%.

**Table 1: Distribution of Tribal Population in Andhra Pradesh, 2011**

Sl	District	Population (per Census 2011)		
		Total	ST	% of ST
1	Vishakhapatnam	4,290,589	618,500	14.4
2	Vizianagaram	2,344,474	235,556	10
3	SPSR Nellore	2,963,557	285,997	9.7


<sup>2</sup>The terms ‘tribals’ and ‘scheduled tribals’ are used inter-changeable and akin to indigenous peoples.

<sup>3</sup>AP TPPF (Power Transmission and Distribution Project)

Sl	District	Population (per Census 2011)		
		Total	ST	% of ST
4	Srikakulam	2,703,114	166,118	6.1
5	Prakasam	3,397,448	151,145	4.4
6	East Godavari	5,285,824	297,044	5.6
7	Chittoor	4,174,064	159,165	3.8
8	Anantapur	4,081,148	154,127	3.8
9	Krishna	4,517,398	132,464	2.9
10	West Godavari	3,994,410	133,997	3.4
11	YSR Kadapa	2,882,469	75,886	2.6
12	Kurnool	4,053,463	82,831	2
	<b>State</b>	<b>44,687,958</b>	<b>2,492,830</b>	<b>5.58</b>

### Scheduled Areas in Andhra Pradesh

Andhra Pradesh’s tribal scenario is quite unique as it has certain pockets listed as ‘scheduled’. This is in accordance with the provisions of the Indian Constitution - Article 244 and 5th Schedule. Scheduled areas are those areas which are treated differently from other areas in a state in the sense that whole of the administrative machinery operating in the state is **not** extended to these areas. The objective of which is to provide protection to the tribals living in the Scheduled Areas from alienation of their lands and natural resources to non-tribals. The criteria followed for declaring an area as Scheduled Area are preponderance of tribal population, compactness and reasonable size of the area, under-developed nature of the area and marked disparity in economic standard of the people. In common parlance, in AP, scheduled areas are called as Agency areas due to the presence of specialized tribal development agencies. The scheduled areas in Andhra Pradesh are as follows:

The Scheduled Areas of Andhra Pradesh	
<ul style="list-style-type: none"> <li>Visakhapatnam Agency area 1 (excluding the areas comprising the villages of Agency: Lakshmipuram, Chidikada, Konkasingi, Kumarapuram, Krishnadevipeta, Pichigantikothagudem, Golugondapeta, Gunupudi, Gummudukonda, Sarabhupalapatnam, Vadurupalli, Pedajaggampeta)</li> <li>Sarabhupathi Agraharam, Ramachandrarajupeta Agraharam, and Kondavatipudi Agraharam in Visakhapatnam district</li> <li>East Godavari Agency area 2 (excluding the area comprised in the village of Ramachandrapuram including its hamlet Purushothapatnam in the East Godavari district)</li> <li>West Godavari Agency area in West Godavari district. The data includes the villages of 7 mandals from Khammam district to the A.P. State (as per Reorganisation Act, 2014): Nellipapaka, Kunavaram, Chintoor and V.R. Puram in East Godavari district and Burgampad, Kukunoor and Valaipadu in West Godavari district.</li> </ul>	

## List of Notified Scheduled Tribes in AP

A scheduled tribe (ST) is identified by the Constitution of India, taking into consideration various factors such as (i) primitive traits, (ii) distinctive culture, (iii) geographical isolation, (iv) social and economic backwardness, and others. However, identification of tribes is a state subject. Tribes notified for Andhra Pradesh State are ST in Andhra Pradesh only, and their category may vary in other states. The list of Scheduled Tribes of Andhra Pradesh as per the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 2002 is provided in Table 2.

**Table 2: List of Scheduled Tribes in Andhra Pradesh**

Sl	Name of Tribe	Sl	Name of Tribe
1	Andh, Sadhu Andh	18	Koya, DoliKoya, GuttaKoya, Kammara, Koya, MusaraKoya, OddiKoya, Pattidi, Koya, Rajah, RashaKoya, Lingadhari, Koya (ordinary), KottuKoya, Bhine and Koya, Rajkoya
2	Bagata	19	Kulia
3	Bhil	20	Malis
4	Chenchu	21	Manna Dhora
5	Gadabas, Bodo Gadaba, Gutob Gadaba, Kallayi Gadaba, Parangi Gadaba, Kathera Gadaba, Kapu Gadaba	22	MukhaDhora, NookaDhora
6	Gond, Naikpod, Rajgond, Koitur	23	Nayaks
7	Goudu	24	Pardhan
8	Hill Reddis	25	Porja, Parangiperja
9	Jatapus	26	Reddidora
10	Kammara	27	Rona, Rena
11	Kattunayakan	28	Savaras, KapuSavaras, MaliyaSavaras, KhuttoSavaras
12	Kolam	29	Sugalis, Lambadis, Banjara
13	Konda Dhoras, Kubi	30	Valmik
14	Konda Kapus	31	Yenadis, ChellaYenadi, KappalaYenadi, ManchiYenadi, ReddiYenadi
15	Kondareddis	32	Yerukulas, Koracha, DabbaYerukula, KunchapuriYerukula, UppuYerukula
16	Kondhs, Kodi, Kodhu, Desaya Kondhs, Dongria Kondhs, Kuttiya Kondhs, Tikiria, Kondhs, Yenity Kondhs, Kuvinga	33	Nakkala, Kurvikaran
17	Kotia, Benthoriya, Bartika, Dulia, Holva, Sanrona, Sidhopaiko	34	Dhulia

## Section 3: Baseline Findings and Observations

### Major Baseline Findings

The study team visited a total of 18 sample tanks across all agro climatic zones in the state. Of the 18 tanks covered, 3 tanks (in Srikakulam, Visakhapatnam and Vizianagaram districts) were located in Fifth Schedule Areas and had a majority tribal population.

**Table 3: List of Tribal Tanks selected for the Study**

Sl	District	Village	Tank
1	Vizianagaram	Dummangi	Dummangi Cheruvu
2	Visakhapatnam	Similiguda	Similiguda Mini Reservoir
3	Srikakulam	Routhupuram	Routhupuram Pedda Cheruvu

In case of the remaining 15 tanks negligible tribal population was found. The baseline findings for the tribal development plan are therefore drawn from the three sample tanks located in the Fifth Schedule Areas and discussed in the following paragraphs.

### Land Holdings

The land holding details of the farmers in the command area are given in Table. This includes the total land held by the farmers in the command area of the tank and outside. Total command area under three tanks is 461.00 acres. Data revealed that, land holdings of selected households (for Baseline study) are 84.42 acres in command area and 16.40 outside command area.

**Table 4: Land distribution in sample tribal tanks**

District	Tank Name	In command area (acre)	Outside tank command area (acre)
Srikakulam	R. L. Puram Pedda Tank	8.62	0.9
Visakhapatnam	Similiguda Tank	39.80	0
Vizianagaram	Dommangi Tank	36.00	15.5
<b>Overall</b>		<b>84.42</b>	<b>16.40</b>
<b>% Share</b>		<b>84</b>	<b>16</b>

A majority (76%) of the ST respondents is marginal farmers, 16% small farmers, 4% medium farmers and 4% large farmers.

**Table 5: Land ownership by farmer category in selected tribal tanks**

District	Tank Name	Marginal	Small	Medium	Large	Total
Visakhapatnam	Similiguda Tank	11	2	2	0	15
Vizianagaram	Dommangi Tank	10	3	0	2	15
Srikakulam	R. L. Puram Pedda Tank	13	2	0	0	15
<b>Overall</b>		<b>34</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>45</b>
<b>% Share</b>		<b>76</b>	<b>16</b>	<b>4</b>	<b>4</b>	<b>100</b>

Farmers are growing paddy in both Kharif and Rabi seasons in three tanks. Only Similiguda tank is cultivating horse gram crop during rabi season and no other crops grown by other two tanks. *Some of the farmers 11 (24%) are gone to fields as agriculture labourers and cultivating their own land also observed in three tanks and no migration observed in three tanks.*

#### ***Land Owners and Leased-out in Command Area***

Under the three tribal tanks 170 farmers (83%) ayacutdars were cultivating lands on their own, of this 20% were women ayacutdars. Whereas 35 farmers (17%) were farmers who leased, of this 15 farmers (7%) were women ayacutdars. Farmers who lease were found only in Srikakulam district.

**Table 6: Land ownership pattern of tribal tanks**

District	No. of WUAs	No. of Land Owners		Total Land Owners	No. of Farmers who lease		Total Farmers who Leased	Total Farmers	% farmers who lease to Land Owners
		Male	Female		Male	Female			
Visakhapatnam	1	46	9	55	0	0	0	55	0
Vizianagaram	1	25	25	50	0	0	0	50	0
Srikakulam	1	58	7	65	20	15	35	100	53.8
<b>Total</b>	<b>3</b>	<b>129</b>	<b>41</b>	<b>170</b>	<b>20</b>	<b>15</b>	<b>35</b>	<b>205</b>	<b>20.6</b>
<b>% Share</b>		<b>63</b>	<b>20</b>	<b>83</b>	<b>10</b>	<b>7</b>	<b>17</b>		

#### ***Crop Productivity***

The main crop that was cultivated in the sample tanks was paddy in both the seasons. Instances of cultivation of any other crop were not found barring cultivation of horsegram in the Similiguda tank. The average productivity of paddy across the three sample tanks was 3.52 Tonne/Ha in Kharif season. The highest productivity of 3.92 Tonne/Ha is observed in Routhpuram Pedda Cheruvu of Srikakulam district and the lowest of 3.12Tonne/Ha observed in the Similiguda tank of Visakhapatnam district. During the Rabi season only two tanks namely Similiguda of Visakhapatnam district and Dommangi tank of Vizianagaram district cultivated paddy. The average productivity of paddy in rabi season is 3.99 T/Ha. Other than paddy, Horsegram crop cultivated in Similiguda tank with average productivity of 0.56T/ha.

#### ***Awareness Levels on Agricultural Practices***

The levels of awareness of farmers on agricultural practices in the tribal tanks were found to be quite low. For instance, only 2.4% of the sample was aware of Integrated Nutrient Management and a similar proportion was aware of application of Farm Yard Manure and Vermi compost. There was no awareness regarding green manuring, micronutrient application, seed treatment, and weeding and water management.

### Water User Association Organization and Stakeholders

**Constitution of Water User Association (WUA):** The baseline study shows that the WUAs were formed in all tanks as per the APFMIS Act. However, elections had not been conducted for WUAs after 2008. This however is not peculiar to tribal tanks but has been observed across all sample tanks.

**Localized and Non-localized Ayacut:** The major objectives of establishment of the institution of WUAs were to systematize the water distribution system, encourage judicious use of water and to help the Revenue Department in collection of water cess/ tax regularly from localized Ayacutdars. The data collected shows that apart from localized Ayacutdars, there are non-localized farmers (cultivators outside the command area) who also utilize tank water for cultivation. The details of localized and non-localized areas under the tank indicated that an average of 6.5 per cent households is using tank water.

**Managing Committee (MC) Membership:** It was observed that all the sample tanks had WUA members as per the APFMIS Act provisions. However, there was no representation of females in the MCs.

**Caste and Gender Wise Distribution of WUA MC Members:** It was observed that most of the MC members were from ST community (88.9%), followed by the BC community (11.1%). There were no OC and SC members in any of the tanks. Women representation was not observed in any of the MCs.

**Table 7: Caste and Gender wise distribution of WUA MC Members**

Sl	District	Total WUA	Expected Number of Members	Actual Number of Members Present	Caste				
					SC	ST	BC	OC	Total
1	Visakhapatnam	1	6	6	0	6	0	0	6
2	Vizianagaram	1	6	6	0	5	1	0	6
3	Srikakulam	1	6	6	0	5	1	0	6
	<b>Total</b>	<b>3</b>	<b>18</b>	<b>18</b>	<b>0</b>	<b>16</b>	<b>2</b>	<b>0</b>	<b>18</b>
			<b>%</b>	<b>100.0</b>	<b>0.0</b>	<b>88.9</b>	<b>11.1</b>	<b>0.0</b>	<b>100.0</b>

**Location of Land of MC Members in Command Area:** Representation of middle reach farmers in WUAs was higher compared to head and tail reach farmers.

**Table 8: Location of Land of MC Members in Command Area**

Sl	District	Total WUA	Expected Members	Members Present	Location			
					Head	Middle	Tail	Total
1	Visakhapatnam	1	6	6	1	3	2	<b>6</b>
2	Vizianagaram	1	6	6	1	2	3	<b>6</b>
3	Srikakulam	1	6	6	3	3	0	<b>6</b>
	<b>Total</b>	<b>3</b>	<b>18</b>	<b>18</b>	<b>5</b>	<b>8</b>	<b>5</b>	<b>18</b>
	<b>%</b>			<b>100.00</b>	<b>27.8</b>	<b>44.4</b>	<b>27.8</b>	<b>100.0</b>

**Educational Status of MC Members:** Of the total 13 MC members 72.2% had received primary education and the remaining 27.8% had received secondary level education. MC members had not been provided any training since their election. They were not aware of the Andhra Pradesh Farmer Management of Irrigation Systems (APFMIS) Act, their roles and responsibilities and functioning of WUAs and all of them indicated that they required training.

**Table 9: Educational Status of MC Members**

Sl	District	Total WUA	Total Expected Members	Actually Presented	Education			
					Primary	Secondary	College	Total
1	Visakhapatnam	1	6	6	5	1	0	6
2	Vizianagaram	1	6	6	5	1	0	6
3	Srikakulam	1	6	6	3	3	0	6
	<b>Total</b>	<b>3</b>	<b>18</b>	<b>18</b>	<b>13</b>	<b>5</b>	<b>0</b>	<b>18</b>
	<b>%</b>			<b>100.0</b>	<b>72.2</b>	<b>27.8</b>	<b>0.00</b>	<b>100.0</b>

**Co-option of GP members:** The APFMIS Act 1997 was amended in the year 2003 wherein co-option of GP members was incorporated in the WUAs. This is in line with the 73rd and 74th Amendment of Panchayat Raj Act. The amendment also focused on gender equity and suggested incorporation of one male and one female member in the WUA. This is the only specific provision in the Act to ensure women’s representation in tank management. Co-option of GP members also becomes crucial to strengthen joint working of WUA and GP as the GP is seen as the ‘owner’ of all common property resources. The field study indicated lack of awareness and understanding of this important modality and co-option was not observed in any of the tanks.

**Constitution of Sub-Committees:** The APFMIS Act suggests constitution of sub-committees to carry out functions of tank management. As per the act, each WUA should constitute 4 sub-committees viz., works, finance, water management, and M&E and training. The Act suggests incorporation of other WUA members also in the constitution of these committees besides the Managing Committee members. This provision of the Act provides for facilitating day-to-day operations as well as helps in further decentralization / sharing responsibilities by tank users for tank improvement, maintenance and management along with the Managing Committee. The field study revealed that none of the WUAs had constituted sub-committees. This could primarily be attributed lack of awareness on constitution of Sub-Committee among members.

**Office establishment and record maintenance:** None of the tanks had offices and WUAs were operating either from the President’s house or were using the Gram Panchayat office for meetings. The WUAs indicated that they were constrained by lack of funds in running the WUA offices and required funds for office establishment.

**Meetings of MCs and GBs:** As per the APFMIS Act MCs should conduct at least one meeting in a month and General Body meetings should be conducted twice a year. However,

it was found that neither MC nor GB meetings were being conducted in any of the three tanks.

**Water Management:** Water management is one of the most important functions of WUA. Placing Neeruganti (Water distribution person) is a traditional practice followed in Andhra Pradesh and Government appointed lascars. Neither Lascars nor Neeruganti had been appointed for water management in any of the sample tanks and farmers were managing water distribution on their own.

**Water Distribution:** Water distribution schedules were not being prepared in any of the three tanks. There was no formal practice of water assessment and allocation before the season. Farmers had an informal understanding on rotation of ayacut based on water availability. Plans were not made for water scheduling and release and water when available in the tank was released continuously without rotation.

**Disputes over Water Distribution:** Disputes over water distribution were found in one tank in Srikakulam district and this related to inadequate water supply. The dispute was resolved through the efforts of the WUA.

**Water Saving Methods:** Efforts have been made to introduce micro irrigation technology (sprinklers and drips) among the farming community keeping. Adoption of water saving technology was quite low in tank areas. Only one tank had adopted of micro irrigation. Sprinkler technology was not used in any of the WUAs. Drip technology was used by ten farmers in Srikakulam district.

**Financial Resources with WUA:** None of the tanks had received funds from other sources and O&M plans were not being prepared. Water tax was not being collected in the sample three tanks. Revenue Department officials indicated that water tax was not being collected due to draught conditions in most tanks and this was corroborated by farmers.

### **Inferences from the Baseline Findings**

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Key inferences from the social assessment study include the following:

- **Economic Vulnerability:** A majority of the ST population is poor and has limited access to natural, financial and productive assets. A large proportion of the population is landless or has small and uneconomic land-holdings and has subsistence living conditions. The economic vulnerability of ST households lends them more susceptible to other shocks and distresses.
- **Low Crop Diversification and Productivity:** Low levels of crop productivity were observed in the sample tanks. This can be attributed to lack of adoption of improved practices of cultivation, inadequate water availability, inadequate access to advanced farm inputs and technical know-how and inadequate access to extension and support services.
- **Limited Access to Alternate Livelihood Sources:** Lack of adequate access to information and technical know-how affects the extent to which individuals from the ST community can take up alternative livelihood sources be it pisci-culture, piggery, goater, back-yard farming, poultry, duck-rearing, etc. They are also constrained in taking up newer occupations due to lack of capital for making initial investments.

- **Limited Ability to Negotiate with Intermediaries and Buyers:** Owing to the lack of appropriate marketing and negotiation skills members of the ST community are unable to appropriately bargain with intermediaries and buyers in the supply chain of their produce.
- **Limited Awareness on WUA Operations:** A majority of the community members and Ayacutdars are unaware of the provisions of the APFMIS and have low levels of access to information on aspects such as WUA and operations and management of tank systems. This affects their ability to effectively manage and contribute to WUA operations and activities such as conducting meetings and record keeping.
- **Lack of Awareness on Skill and Livelihood Development Programme:** Tribal youth have low levels of awareness of skill and livelihood development programs. This renders them constrained in terms of the extent to which they were able to become economically empowered.
- **Lack of Adequate Agricultural Marketing Infrastructure:** Discussions revealed that tribals perceived the existing marketing infrastructure such as agriculture market yards at the mandal level were unable to meet their needs. They were therefore mostly dependent on commission agents for sale of their commodities and produce.
- **Absence of Economies of Scale:** The quantities that the tribal communities are able to make available for sale are limited and there are no instances of collective purchases of inputs and sale of produce. Most the tribal population were not aware of farmer producer organizations/companies or any other organizations for collective sale and purchase.
- **Limited Involvement of Government Agencies:** The operations of Tribal Cooperative Marketing Development Federation of India (TRIFED) and Girijan Co-operative Corporation(GCC) were found to be limited and private agencies were found to be more active. For instance, some private agencies were found to be procuring medicinal herbs at cheap prices from tribals.

The data presented from the household surveys illustrates that despite constitutional safeguards, various policy provisions and regulations and different development programs being implemented in the state, tribal sections continue to remain backward and poor. Keeping in view these problems and issues which have evolved overtime and with a view to remove the socio-economic constraints faced by them, there is a need for the PPF to address the issues specific to the proposed tank management project. This being a project focused on minor irrigation tanks, it would be unrealistic to assume that all the issues discussed will be addressed in their entirety by the project. There are several programs of the GoAP and GOI addressing most of these issues (discussed in the following section) and it would be appropriate that the project create implementation strategies to dovetail such development programs for the benefits of the tribal community in sub-project areas. The project would also focus on issues that directly relate to tribal people accessing project benefits.

## Section 4: Legal and Institutional Framework

### Applicable Legislations of GoI and GoAP

The Government of India has framed many policies and laws to safeguard the interest of the Scheduled Tribes. Article 366(25) of the Indian constitution refers to STs as those communities who are scheduled in accordance with Article 342 of the Constitution. According to Article 342 of the constitution, STs are the tribes or tribal communities or part of or groups within these tribes and tribal communities which have been declared as such by the President through a public notification. The applicable national and State legislations and World Bank Operational Guidelines are provided in Table 10:

**Table 10: Applicable Legislations of GoI and GoAP**

SI	Act / Policy	Salient Features
<b>Government of India</b>		
	<b>The Constitution (73rd Amendment) Act, 1992</b>	<ul style="list-style-type: none"> <li>• The Constitution (73rd Amendment) Act, 1992 vests power in the State Government to endow Panchayats with such powers and authority as may be necessary to enable them to function as institutions of self-government such as: preparation of plans and their execution for economic development and social justice in relation to 29 subjects listed in the XI schedule of the Constitution. It vests authority to Panchayats to levy, collect and appropriate taxes, duties, tolls and fees and transfers taxes, duties, tolls and fees collected by the States to Panchayats.</li> <li>• The Act mandates provisions for: <ul style="list-style-type: none"> <li>▪ Establishment of a three-tier structure (Village Panchayat, Panchayat Samiti or intermediate level Panchayat and Zilla Parishad or district level Panchayat).</li> <li>▪ Establishment of Gram Sabhas at the village level. Regular elections to Panchayats every five years.</li> <li>▪ Proportionate seat reservation for SCs and STs.</li> <li>▪ Reservation of not less than 1/3 seats for women.</li> <li>▪ Constitution of State Finance Commissions to recommend measures to improve the finances of Panchayats.</li> </ul> </li> </ul>
	<b>5th Schedule of Constitution (Article 244 (1))</b>	<ul style="list-style-type: none"> <li>• The schedule has been added to the Constitution to protect the cultural identity and economic rights of the tribal people.</li> <li>• The schedule provides for the administration and control of Scheduled Areas and Scheduled Tribes. In pursuance of this schedule, the President of India had asked each of the states to identify tribal dominated areas. Areas thus identified by the states were declared as Fifth Schedule Areas.</li> <li>• The schedule enables the Government to enact separate laws for governance and administration of the tribal areas. Para 5 of the schedule divulges the power to the Governor of the State to define laws applicable to the Scheduled Areas. Specifically, the Governor of the state can make regulations that may: <ul style="list-style-type: none"> <li>▪ Prohibit or restrict the transfer of land by or among members of</li> </ul> </li> </ul>

Sl	Act / Policy	Salient Features
		<p>the Scheduled Tribes in such areas;</p> <ul style="list-style-type: none"> <li>Regulate allotment of land to members of the Scheduled Tribes in such area</li> <li>Some of the proposed projects will be located in the Schedule V areas and in such cases the provisions of Tribal Peoples Planning Framework (TPPF) will be triggered</li> </ul>
	<b>The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Rules, 1995</b>	<ul style="list-style-type: none"> <li>The Act provides for specific provisions to prevent atrocities on the Scheduled Castes and the Scheduled Tribes and suggests State Government to frame rules for the same.</li> <li>Provisions include identification of areas where atrocity may take place or there is an apprehension of reoccurrence of an offence under the Act. The State Government is required to set up a Scheduled Castes and the Scheduled Tribes Protection Cell at the State headquarters under the charge of Director of Police, Inspector-General of Police. This Cell is responsible for conducting survey of the identified area; maintaining public order and tranquillity in the identified area; recommending to the State Government for deployment of special police force or establishment of special police post in the identified area; and restoring feeling of security amongst the members of the Scheduled Castes and the Scheduled Tribes</li> </ul>
	<b>Panchayat Extension to Scheduled Areas Act (PESA), 1996</b>	<ul style="list-style-type: none"> <li>The Act provides for extension of provisions of Part IX of Constitution relating to Panchayats to the Scheduled Areas. As per the provisions, every village in Schedule V areas will have a Gram Sabha which will approve of the plans, programmes and projects for social and economic development before such plans, programmes and projects are taken up for implementation at village level.</li> <li>Some of the proposed projects will be located in the Schedule V areas and in such cases the provisions of Tribal Peoples Planning Framework (TPPF) will be triggered</li> </ul>
	<b>The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006</b>	<ul style="list-style-type: none"> <li>This Act grants legal recognition to rights of traditional forest dwelling communities/s</li> <li>This Act is for those who either primarily reside in forests and forest lands or depend on forests and forest land for a livelihood.</li> </ul>
<b>Government of Andhra Pradesh</b>		
	<b>Andhra Pradesh (Andhra Scheduled Areas) Estate (Abolition and conversion into Ryotwari) Act; Andhra Pradesh Mutta (Abolition and conversion into</b>	<p>These are land mark enactments and promulgations that facilitated state ownership of private estates and lands in the scheduled areas and paved way for settlement of land tenure. Prior to these enactments and promulgations lands in the scheduled areas were under private ownership in the form of estates. In the scheduled areas of Visakhapatnam and East Godavari districts, the then rulers granted 'Mokasas' and 'Mutta rights' to certain individuals in recognition of service rendered by them like assisting in collection of land revenue, maintaining law and order etc. Since these were basically grants, the</p>

Sl	Act / Policy	Salient Features
	<b>Ryotwari) Regulation, 1948 and 1969</b>	tribals did not have absolute rights over these properties. Through abolition of Estates the state paved way for settlement of rights of all the tribal tenants who tilled these lands. Further through abolition of Mutta rights and their conversion as Ryotwari Pattas, the Mokasas and the Mutta rights were settled in favour of the tribals who tilled these lands.
	<b>Andhra Pradesh Scheduled Areas Land Transfer Regulation, 1959</b>	This promulgation extended the provisions of the Agency Tracts Interest and Land Transfer Act, 1917 of the former Madras presidency to the scheduled areas of the Andhra region (Srikakulam, Vizianagaram, Visakhapatnam, East Godavari and West Godavari districts) of the reorganized state of Andhra Pradesh
	<b>Andhra Pradesh Scheduled Castes Sub Plan and Tribal Sub Plan (Planning, Allocation and Utilization of Financial Resources) Act No. 1, 2013</b>	The Act aims to ensure accelerated development of Scheduled Castes and Scheduled Tribes with emphasis on achieving equality focusing on economic, educational and human development along with ensuring security and social dignity and promoting equity among SCs and STs by earmarking a portion in proportion to the population of SC and ST in the state, of the total plan outlay of the state of Andhra Pradesh as the outlay of the SC Sub Plan/ Tribal Sub Plan of the state.

## Schemes for Tribal Welfare and Development

A list of the key schemes established for tribal welfare and development is provided in Table 11.

**Table 11: Applicable Legislations of GoI and GoAP**

Sl.	Scheme	Description
1.	<b>Tribal Sub-Plan (TSP)</b>	<ul style="list-style-type: none"> <li>TSP falls within the ambit of state plan meant for the welfare and development of tribals. It is a part of the overall plan of the state and the benefits given to the tribals and tribals areas from the TSP are in addition to what percolates from the overall plan of a state. The sub-plans identify the resources for TSP areas, prepare a broad policy framework for the development and define a suitable administrative strategy for its implementation. The most significant aspect of this strategy is to ensure flow of funds for TSP areas at least in equal proportion to the Scheduled Tribes population of the state.</li> <li>In Andhra Pradesh State, the TSP area covers the Scheduled Areas and non-scheduled villages with 50 per cent of tribal concentration in the districts of West Godavari, East Godavari, Visakhapatnam, Vizianagaram and Srikakulam. For the purpose of taking up an appropriate programme for the tribals the tribal areas under the TSP have been categorized into ITDAs, MADA, Cluster, DTDP and PTDP.</li> </ul>

Sl.	Scheme	Description
2.	<b>Integrated Tribal Development Agencies (ITDA)</b>	In order to give operational effect to the tribal sub-plan approach, areas of concentration tribal population have been identified and separate administrative units in the form of ITDAs were established for integrated development in 1975. Under the sub-plan approach ITDAs were established in the districts of West Godavari, East Godavari, Vishakhapatnam, Vizianagaram, Srikakulam and Nellore.
3.	<b>Modified Area Development Approach (MADA)</b>	After removal of area restriction as per the provisions of Scheduled Castes and Scheduled Tribes Orders (Amendment) Act 1976, the Yerukala, and Lambadas became Scheduled Tribes. This change necessitated extending developmental activities on large scale to tribals living in plain areas. Three criteria have been laid down for identification of the tribal pockets under MADA. (1) A minimum Population of 10,000. (2) 50 per cent of the population in the pockets should belong to Scheduled Tribes. (3) Village in the pockets should be contiguous. In accordance with above guidelines MADA pockets are identified and sanctioned in Andhra Pradesh. These pockets are in Srikakulam, Krishna and Guntur districts.
4.	<b>Cluster Approach</b>	Beyond the MADA pockets, there are small areas of tribal concentration. These are called as clusters. Contiguous areas having a population of 5000 or more with at least 50 per cent tribal concentration are identified as clusters. These clusters are smaller pockets of tribal concentration. In Andhra Pradesh, the districts are Vizianagaram, Vishakhapatnam and West Godavari districts. For all round development of tribals in these clusters, assistance is provided for implementation of individual and community benefit-oriented programmes.
5.	<b>Micro Points for Primitive Tribal Groups (PTDP)</b>	<ul style="list-style-type: none"> <li>• Micro level planning was considered quite essential for the primitive tribes. The developmental projects meant for the primitive tribal communities are known as Micro projects. To ensure special attention for the development of the primitive tribes as well as to bring about their all-round uplift.</li> <li>• These Micro Projects aim at bringing about socio-economic development of a group of families in a compact area. They are made to refine and improve upon the traditional vocation of primitive tribes residing in the micro project areas while planning for their social and economic development. Emphasis is given on implementation of individual benefit-oriented schemes as well as development of critical infrastructure in the project area. Unlike the tribes of other areas, the primitive tribes covered under micro project are allowed to avail 100 per cent subsidy under individual benefit schemes. The projects also aim at developing the core economic sectors like agriculture, horticulture, soil conservation and animal husbandry. Besides them facilities of drinking water, education and health are also provided under these projects. The schemes that are being introduced for the development of the other tribes will not be applicable to them. Based on their cultural</li> </ul>

Sl.	Scheme	Description
		specialties, ecosystem and aptitude, core programmes have been identified for different primitive groups.
6.	<b>Dispersed Tribal Development Programme (DTDP)</b>	<ul style="list-style-type: none"> <li>The programme for the development of the dispersed tribal population remaining outside the coverage of ITDA, MADA and Micro Projects, is being implemented from the Sixth Five Year Plan. This programme is known as Dispersed Tribal Development Programme. Implementation of DTDP has been extended to cover the entire dispersed tribal population in the Andhra Pradesh State.</li> </ul>
7.	<b>Andhra Pradesh Tribes Cooperative Finance Corporation Limited (TRICOR)</b>	Andhra Pradesh Tribes Cooperative Finance Corporation Limited was established in 1976 and its area of operation extends over the entire state of Andhra Pradesh. TRICOR provides financial assistance, agriculture credit, skill upgradation and support to self-help groups.
8.	<b>Girijan Cooperative Corporation Limited (GCC)</b>	The GCC is a public sector undertaking of Government of Andhra Pradesh. The GCC established for the socio-economic uplift of tribals in the state of Andhra Pradesh. The GCC is a state level organization with one regional office, 10 divisional offices, 43 Girijana Primary Cooperative Marketing societies (GPCMS) and 839 DR Depots which work in close coordination with ITDAs.
<b>Economic Development Schemes</b>		
9.	<b>Economic Support</b>	Financial assistance is given to take up economic development programmes for Scheduled Tribes under schemes such as agriculture, horticulture, sericulture, coffee plantation etc.
10.	<b>Integrated Area Development Programme</b>	<ul style="list-style-type: none"> <li>This programme has been established to take up family oriented income generating schemes for Scheduled Tribes (Special Central Assistance to Tribal Sub-Plan).</li> <li>Schemes under Article 275(1) - to bridge critical gaps in infrastructure by taking up infrastructure development facilities such as BT roads, minor irrigation schemes, amenities to tribal welfare educational institutions etc.</li> <li>Schemes under Tribal Area Sub-Plan -to provide quality education and amenities/additional accommodation to tribal welfare educational institutions/educational institutions in tribal areas.</li> </ul>
11.	<b>Development of Primitive Tribal groups</b>	<ul style="list-style-type: none"> <li>Special projects approved by Government of India for development of PTGs are taken up under this with equal matching grants from state government.</li> </ul>
12.	<b>Coffee Plantation Project</b>	<ul style="list-style-type: none"> <li>Under this the coffee plantation project is taken up in ITDA, Paderu at Vishakhapatnam district and about one lack acres of area is under coffee plantation.</li> </ul>
13.	<b>Other Schemes</b>	<ul style="list-style-type: none"> <li>Monetary Relief and Legal Aid to the Victims of Atrocities</li> <li>Promotion of Inter Caste Marriages</li> <li>Research Fellow Scholarships</li> <li>Laying of Roads - Infrastructure facilities are taken up in tribal areas with assistance from NABARD. Under this BT roads, drinking water sources etc. are provided.</li> </ul>

Sl.	Scheme	Description
		<ul style="list-style-type: none"> <li>• Health Insurance -The department of tribal welfare has introduced a “Student Health Insurance” and “Personal Accident Policy” under the name of Rajeev Girijana Raksha to provide immediate medical care through reputed private hospitals up to Rs. 5000 in all cases and up to Rs. 50,000 in emergency cases.</li> <li>• Grain Banks - To provide food security to all PTGs families. 4563 Grain Banks are established in tribal areas in the ITDAs of Andhra Pradesh state.</li> </ul>

### **Applicable World Bank Operational Policy Guideline**

The World Bank Safeguard Policy with regards to Scheduled Tribes is indicated in Table 12.

**Table 12: Applicable World Bank Safeguard Policy with regards to STs**

<b>OP/BP 4.10: Indigenous People</b>	<ul style="list-style-type: none"> <li>• This policy refers to a distinct, vulnerable, social and cultural group such as Scheduled Tribes or Tribal Folks. People who have lost collective attachment to geographically distinct habitats or ancestral territories in project areas because of forced severance remain eligible for coverage under this policy. Majority of tribals are socially and economically weak, prone to vulnerability and often feel excluded from development initiatives</li> <li>• To ensure project benefits on par with others, specific targeting is essential and accordingly in line with the Bank's OP 4.10, a Tribal Peoples Planning Framework (TPPF) has been prepared which includes measures to enhance the positive impact of the project for Scheduled Tribes</li> </ul>
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## Section 5: Stakeholder Analysis

A stakeholder analysis has been undertaken to identify the issues and the concerns of the stakeholders who are supposed to be directly or indirectly impacted/benefited by the project or assume a position wherein they can have a significant role to play in project implementation. The analysis has been carried out to identify existing relationships and also to understand the roles, responsibilities and relations of these stakeholders in context of shaping social issues with respect to the proposed project.

### Identification of Major Stakeholders

Stakeholders across tank, village, panchayat, sub-district, district and state levels were interacted with. While some of these stakeholders are directly benefitted/involved and others would be indirectly involved. A list of project stakeholders at various levels is provided in Table 13.

**Table 13: List of Project Stakeholders**

Village/ Tank level	
Primary Stakeholders	Secondary Stakeholders
1. Community: <ul style="list-style-type: none"> <li>Scheduled Tribe Community including farmers, women, fisher folk, agricultural labourers, non-farm wage workers, cattle grazers etc.</li> </ul> 2. Groups: <ul style="list-style-type: none"> <li>Water User Associations</li> <li>Women’s SHGs</li> </ul> 3. Government and PRI Representatives <ul style="list-style-type: none"> <li>Ward members/representative</li> <li>Government functionaries such as Village Revenue Officer, Minor Irrigation Work Inspector, Village Agriculture Worker, Panchayat Secretary etc.</li> </ul> 4. Other service providers	1. Traders and Retailers           2. Local credit institutions (money lenders, pawn brokers etc.)           3. Government Staff: <ul style="list-style-type: none"> <li>Anganwadi staff and ANMs</li> <li>Primary school teachers</li> </ul>
Panchayat level	
Primary Stakeholders	Secondary Stakeholders
1. President/Sarpanch (Gram Panchayat) 2. Technical Assistants (NREGA) 3. Village Agriculture Worker 4. Fishery Department officers 5. Animal Husbandry/Livestock Department officers 6. Horticulture Department officers 7. Forest Department officers 8. Integrated Tribal Development Agency (ITDA) and other Tribal Welfare and Development Agencies staff	1. Traders (rice traders and fish traders, vegetable and fruit vendors etc.) 2. Retailers (sellers of products like agriculture seeds, pesticides, fertilizers and implements) 3. Millers 4. Transporters 5. Money Lenders 6. Media
Sub-division Level	
Primary Stakeholders	Secondary Stakeholders
1. Water Resources Department Staff - Assistant Engineers, Deputy Executive Engineers 2. Support Organization (SO) Staff 3. Agriculture Officer, Additional District Agriculture Officer 4. Horticulture Officer 5. Fisheries Development Officer 6. Agriculture Market Yard Officer	1. Traders (rice traders and fish traders, vegetable and fruit vendors etc.) 2. Retailers (sellers of products like agriculture seeds, pesticides, fertilizers and implements) 3. Millers 4. Transporters 5. Bankers/ Financial Institutions

Village/ Tank level	
Primary Stakeholders	Secondary Stakeholders
7. Integrated Tribal Development Agency (ITDA) and other Tribal Welfare and Development Agencies staff	6. Media
District Level	
Primary Stakeholders	Secondary Stakeholders
1. Water Resources Department Staff- Executive Engineer 2. DPU, APIIATP 3. Joint Director and Additional District Agriculture Officer 4. Soil Conservation Officer 5. Assistant Director, Horticulture 6. Revenue Divisional Officer 7. Assistant Director Veterinary Officer 8. Divisional Forest Officer 9. Project Director-DRDA 10. District Fishery Officer 11. Support Organization (SO) Staff	1. Public Representatives 2. NGOs, Resource Organizations and Activists working on Tribal issues 3. Media 4. Technical and Research Institutions
State Level	
Primary Stakeholders	Secondary Stakeholders
1. Project Management Unit, APIIATP 2. Chief Engineer, Minor Irrigation 3. Directorate of Agriculture and Food Production 4. Directorate of Horticulture 5. Directorate of Soil Conservation 6. SC & ST Development department 7. Directorate of Animal Husbandry & Veterinary Services 8. Directorate of Fisheries; Revenue Department; 9. Department of Water Resource 10. Training Institutions 11. Department of Women & Child Development 12. Department of Forest	1. Public Representatives 2. NGOs, Resource Organizations and Activists working on Tribal issues 3. Media

## Expectation of Stakeholders

Stakeholders have a number of expectations from the proposed project. Key expectations indicated by some of the major stakeholders during the course of discussions are summarized in Table 14.

**Table 14: Key Expectations of Major Stakeholders**

Stakeholders	Expectations
<b>Scheduled Tribe Community</b>	<ul style="list-style-type: none"> <li>• Protection of their socio, economic, political rights</li> <li>• Access to project activities and benefits</li> <li>• Capacity building to contribute more effectively in WUAs</li> <li>• Capacity building to undertake activities in agriculture and other allied sectors more effectively and efficiently</li> <li>• Financial assistance for purchase of seeds, fertilizers, pesticides etc.</li> </ul>

Stakeholders	Expectations
	<ul style="list-style-type: none"> <li>• Assured irrigation during dry seasons through steps like drilling of bore wells</li> <li>• Financial assistance for income-generating activities in livestock sector- mostly dairying and sheep/goat rearing</li> <li>• Backward and forward linkages such as marketing, fodder and veterinary services</li> </ul>
<b>Farmers</b>	<ul style="list-style-type: none"> <li>• Renovation of tank structures and water distributary systems</li> <li>• Adequate water storage in tank reservoirs for all season cultivation</li> <li>• Mechanisms through which tail end farmers can access tank water</li> <li>• Availability of extension services such as subsidized seeds, fertilizers, pesticides and technical know-how on aspects such as multi-cropping, cultivation of cash crops and light-duty crops</li> <li>• Inclusion of marginal and vulnerable farmers in WUAs and consideration of their requirements</li> </ul>
<b>Agricultural Labour and Landless</b>	<ul style="list-style-type: none"> <li>• Availability of wage earning opportunities on account of renovation, operation and maintenance of tank systems</li> <li>• Increased number of annual cultivations leading to increased agricultural labour work</li> <li>• Increased involvement in various tank based livelihood opportunities like pisci-culture, duck rearing, fingerling cultivation, fodder cultivation etc. and in household enterprises such as rice processing units etc.</li> </ul>
<b>Fisheries Groups</b>	<ul style="list-style-type: none"> <li>• Round the year water retention in tanks</li> <li>• De-siltation of tank bed for creating adequate water storage facility for pisci-culture</li> <li>• Clearing weeds and stumps in the tank bed for making it suitable for pisci-culture</li> <li>• Adoption of a transparent mechanism for leasing out tanks by Panchayats</li> <li>• Effective resolution of conflicts with farmers by Panchayat</li> <li>• Training and infrastructural support such as boats, nets, fish-houses etc.</li> <li>• Consultation by farmers or WUA Committee members with fishery groups prior to opening sluice gates</li> </ul>
<b>Women’s SHGs</b>	<ul style="list-style-type: none"> <li>• Increased involvement in tank development activities</li> <li>• Convergence between APIIATP and various livelihood schemes such as Mahatma Gandhi National Rural Employment Guarantee Scheme which would enable women to take up income-generating activities</li> <li>• Involvement in supervision of treatment activities</li> <li>• Provision of a special grant or fund for SHGs</li> <li>• Interventions for improving level of drinking water availability</li> <li>• Participation in monitoring tank development activities</li> <li>• Training and capacity building for development of livelihood and leadership skills</li> </ul>
<b>Cattle Grazers and Livestock Owners</b>	<ul style="list-style-type: none"> <li>• Increased fodder availability; new and drought-resistant forage crops; use of common lands for growing fodder crops</li> <li>• Increased water availability for livestock through water conservation measures</li> <li>• Veterinary services</li> <li>• Market facilities</li> </ul>

Stakeholders	Expectations
	<ul style="list-style-type: none"> <li>• Financial assistance for either starting or improving livestock-based activities</li> </ul>
<b>PRI Members</b>	<ul style="list-style-type: none"> <li>• Capacity building on provisions of tribal acts</li> <li>• Awareness on project activities</li> </ul>
<b>Minor Irrigation Department</b>	<ul style="list-style-type: none"> <li>• Provision of adequate funds for renovation of tank systems</li> <li>• Sensitization of tank users through awareness programs</li> <li>• Training and capacity building of WUA members before handing over tank renovation work</li> <li>• Increased field staff support e.g. increase deployment of Work Inspectors, AEs and JEs</li> <li>• Convergence systems at block and district levels to ensure inter-departmental coordination</li> <li>• Support from social development agencies for formation and strengthening of WUAs</li> <li>• Adequate fund flow for regular and timely renovation and maintenance work of tank systems</li> </ul>
<b>Tribal Welfare and Other Tribal Development Agencies of the Government</b>	<ul style="list-style-type: none"> <li>• Capacity building of tribals on project and other government schemes</li> <li>• Capacity building to WUAs to perform better in tank management activities</li> <li>• Adequate funds to the agencies to provide required support to tribals</li> </ul>
<b>Agriculture Department</b>	<ul style="list-style-type: none"> <li>• Construction of proper water distribution channels which would benefit farmers</li> <li>• Availability of support for providing trainings to farmers on agriculture practices</li> <li>• Provision for appointing village level animators to assist WUAs in awareness and mobilisation activities</li> <li>• Availability of support to provide agriculture inputs to farmers and take up demonstrations and exposure visits</li> </ul>
<b>Fishery Department</b>	<ul style="list-style-type: none"> <li>• Maintained of adequate water levels in the tank to allow for fishing activity</li> <li>• Availability of support from Government for stocking of fingerlings at tank level</li> <li>• Availability of support from Minor Irrigation Department in developing fish nursery tanks</li> <li>• Availability of support from Minor Irrigation Department in clearance of weeds and stumps in the tank bed</li> <li>• Availability of support to start polyculture or single prawn crop culture</li> <li>• Fund support for training of Fishing Cooperative Society and providing infrastructural support like boats, nets, pump-sets, etc.</li> <li>• Preference to traditional fishermen groups in project design</li> <li>• Collection of water charges from fishery groups in proportion to quantity of fish production</li> </ul>

## **Findings and Consultations**

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Consultations were held at tank and district levels and the key aspects and issues that emerged from these discussions are summarized as follows:

- There was poor awareness among the community on existing schemes of the Government for the development of tribals
- Domination by a few well to do / influential / opinion leaders in the local planning process was observed
- There was lack of awareness on modern agricultural technologies leads to excessive application of fertilizers and pesticides, leading to high expenditure on inputs and low returns
- None of the tribal households had bore wells adopted drip or sprinkler technologies.
- Due to poor awareness on tank management and institutional arrangements at Government level, articulation of issues related to these aspects was found to be low.
- Though majority of the WUA MC members were from tribal communities, their roles were found to be minimal. The members were found to be poorly informed about the APFMIS Act and their respective roles and responsibilities. Records and registers and other infrastructure facilities were not provided to Committees to discharge their duties.
- Participation in planning processes and operation and maintenance of tank system was nominal.
- General Body meetings and Managing Committee meetings were not conducted and recording of maintenance was completely absent. The Committees were also found to rarely if at all take charge of tank management
- The financial position of WUAs was found to be poor and they were not in a position to take up simple tasks.

## Section 6: Tribal People’s Planning Framework

### Objective

The objectives of the TPPF are to ensure that if tribal people are affected by a project/scheme,

- Tribal people are adequately and fully consulted;
- Tribal people take part in the entire process of preparation, implementation and monitoring of project activities;
- Project benefits are equally accessible to the tribal living in the project area; they are provided with special assistance as per prevailing laws and policies because of their culture identities and to minimize further social and economic imbalances within communities;
- Developing an institutional and implementation arrangements as well as capacity building measures for the implementation of the TPPF, associated disclosure mechanisms and addressing any grievances; and
- Monitoring and reporting arrangements, including mechanisms and benchmarks appropriate to the project. This includes a grievance redress mechanism has also been developed to resolve grievances, if any.

### Strategy

#### *Representation in Water User Association*

Water User Associations are basic units at the tank level to ensure that the tribal families participate in the process and derive project benefits. In the scheduled areas majority of the WUA members and Managing Committee members would be tribals, however in non-scheduled areas also inclusion of tribals in committees needs to be increased. Inclusion of tribals will be instrumental in bringing in transparency and accountability in project implementation. As WUAs will have greater participation of tribal people in scheduled areas, they will ensure that project benefits are accessed by target tribal families. Association with WUAs in local planning process will be helpful to identify and address the needs of tribals in a more comprehensive manner.

#### *Participatory Planning in Project Development at tank-level*

The planning will help to identify key expectations of the households under the tank of the project. The planning process, will help in improving participation of the all households including women and create a platform where they can share their issues and suggest solutions. The plans prepared by the WUA will be presented at the Gram Sabha for approval. Participatory planning in project development at tank-level would include the following presented in Table 15:

**Table 15: Issues and Challenges, and Proposed Project Interventions**

Sl	Issues and Challenges	Project Intervention
1.	<b>Poor understanding and awareness on tank management, agriculture and related activities</b>	Ensuring mandatory representation in the WUA for tribals in the scheduled areas. Encouraging and enabling tribal people to get elected as members of Managing Committees in the non-scheduled areas.

Sl	Issues and Challenges	Project Intervention
		Conducting exclusive training programmes for tribal people.
2.	Poor participation in planning process	Conducting net planning (household level planning) Engaging community through conducting planning on participatory methods such as transect walk, and resource mapping Conducting planning on tank management, agriculture, horticulture, fisheries, groundwater, water management Organizing self-monitoring of project activities Engaging the services of NGOs and Participatory Planning Experts for organizing participatory planning exercises Display of plan documents on village maps

### *Project Administration as per PESA Act Provisions*

Execution of the project and its administration in the scheduled area will abide by the PESA Act, i.e., planning will be made at the GP level and approval of the plan at the Gram Sabha and its implementation.

### *Capacity Development*

The project has made provisions for the capacity development of all stakeholders, including tribal. They will be oriented on different tank management, agriculture, horticulture, fisheries, water management in a structured manner. Exposure visits will also be organized for them to make them learn along with exposure to development models. Further, farmers will be linked to resource organizations like Agriculture Regional Institutions, Universities, Research Stations and Subject Experts.

### **Tribal Inclusion Approach**

Under APIIATP project 177 tribal tanks were selected and the list of tanks has been given as annexure with this document. A combination of strategies and actions discussed earlier are linked to the four stages of the project cycle; pre-planning, planning, implementation and post-implementation. The project will have exclusive strategic focus for greater inclusion and representation of tribal in scheduled areas and their active association in project interventions. The strategy proposed for inclusion of tribal communities is presented in Tables 16.

**Table 16: Project Approach and Strategy and Expected Outcomes by Project Stages**

Project Stages	Project Approach and Strategy	Expected Outcome
<i>Pre-planning</i>	<ul style="list-style-type: none"> <li>Discussion with tribal families/ farmers of the project tanks in scheduled areas on project components and activities.</li> <li>Forming groups with tribal households for focussed attention</li> <li>Identifying key issues for their greater involvement and benefitting from the project interventions</li> <li>Identifying and training resource agencies and persons for conducting planning process</li> </ul>	<ul style="list-style-type: none"> <li>Key intervention areas are identified and guidelines prepared for improved participation of tribal in general and tribal farmers, in particular.</li> <li>List of actions finalized for implementation to</li> </ul>

<b>Project Stages</b>	<b>Project Approach and Strategy</b>	<b>Expected Outcome</b>
	<ul style="list-style-type: none"> <li>▪ Preparing required templates and resource material</li> </ul>	<p>ensure greater Involvement and participation of tribal by activities.</p> <ul style="list-style-type: none"> <li>▪ Tribal households form into groups.</li> </ul>
<b><i>Planning state</i></b>	<ul style="list-style-type: none"> <li>▪ Conducting farmers-wise and cluster wise planning</li> <li>▪ Applying multiple participatory methods for identification of works and activities to be taken up under the project</li> <li>▪ Preparing list of activities based on the priority given by the tribal farmers</li> <li>▪ Preparing household specific plan of action for better inclusion of tribals in different activities</li> </ul>	<ul style="list-style-type: none"> <li>▪ All farmers’ requirements are listed.</li> <li>▪ Greater participation of tribals, WUA leaders, resource agencies and women in planning process.</li> <li>▪ Tribal families will have knowledge of different works to be taken up under the project.</li> </ul>
<b><i>Implementation</i></b>	<ul style="list-style-type: none"> <li>▪ Priority to tribal farmers in providing project inputs</li> <li>▪ Equal opportunities to tribal farmers in non-scheduled tribal and dispersed areas.</li> <li>▪ Priority to activities that are identified during the planning process</li> <li>▪ Promoting community contribution</li> <li>▪ Entrusting certain works to the community</li> <li>▪ Convergence with Tribal Welfare and other government departments</li> <li>▪ Priority to tribal households in creating infrastructure</li> <li>▪ Ensuring greater participation of tribal farmers in implementation of project activities and sub-activities</li> <li>▪ Taking measures, adhering to the scope of the project to build the capacity of tribal farmers in agriculture technologies, marketing, institution management as per the project requirement.</li> <li>▪ Taking measures that are legally binding under PESA</li> </ul>	<ul style="list-style-type: none"> <li>▪ Participation of tribal families in implementation of project activities</li> <li>▪ Participation of tribals in community contribution activities.</li> <li>▪ Better operation and maintenance of tanks systems.</li> <li>▪ Better monitoring of project activities.</li> <li>▪ Adoption of effective water management and agriculture practices by the tribal farmers.</li> </ul>
<b><i>Post Implementation</i></b>	<ul style="list-style-type: none"> <li>▪ Training of tribals on self-monitoring of project activities</li> <li>▪ Promoting community involvement through physical and financial contributions</li> <li>▪ Initiating corrective measures based on community monitoring feedback</li> <li>▪ Documenting success that ensures greater participation of tribals.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Better monitoring systems in place</li> <li>▪ Greater participation of tribals in participation in monitoring and documenting project activities.</li> <li>▪ Better operation and</li> </ul>

Project Stages	Project Approach and Strategy	Expected Outcome
		maintenance of tank and other systems established through the project.

## Tribal Development and Inclusion Framework

**Table 17: Tribal Development and Inclusion Framework: Activities, Key Challenges and Project Approach**

Activity	Sub-Activities	Key Challenges	Project Approach
<b>Component A: Improving Irrigated Agriculture Efficiency at Farm level</b>			
<b>Institutional Strengthening &amp; Capacity Building of WUAs</b>	<ul style="list-style-type: none"> <li>• Formation of New WUAs</li> <li>• Capacity Building of WUAs</li> <li>• WUA Office Infrastructure</li> <li>• Engagement of Para Workers</li> <li>• Transparency &amp; Public Disclosure</li> <li>• Support Organisation</li> </ul>	<ul style="list-style-type: none"> <li>• The present approach of Water Resource Department towards forming and strengthening of Committees is unsound and weak</li> <li>• Less importance to capacity building activities</li> </ul>	<ul style="list-style-type: none"> <li>• The project will sensitize WUA members to adopt democratic methods in selection of their leaders.</li> <li>• The project will give due importance to capacity building interventions</li> </ul>
<b>Improving Small Holder Irrigation System Performance and Resilience</b>	<ul style="list-style-type: none"> <li>• Cascade Identification and Tank Selection Process</li> <li>• Cascade Development Plan (CDP)</li> <li>• Dam Safety Plan Preparation</li> <li>• Tank Bund Strengthening &amp; Aligning</li> <li>• Catchment Treatment of Cascades</li> <li>• Installation / Repair of Head Regulator / Sluice</li> <li>• Construction / Repair of Canal System</li> <li>• Cleaning Feeder Channels</li> <li>• Cleaning Main Canal, Branch Canal &amp; Distributaries</li> </ul>	<ul style="list-style-type: none"> <li>• Water Resource Department field level staff indifferent to participatory system of planning processes</li> <li>• Viewing operation and maintenance of tank systems not WUA responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Engaging the services of support organization for mobilization of farmers and sensitizing them on operation and maintenance issues</li> </ul>
<b>Improving Water</b>	<ul style="list-style-type: none"> <li>• Crop Water Budgeting</li> <li>• Strengthening the Data</li> </ul>	<ul style="list-style-type: none"> <li>• Poor participation in WUA meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Project will engage the services of</li> </ul>

Activity	Sub-Activities	Key Challenges	Project Approach
<b>Productivity and Efficiency</b>	<ul style="list-style-type: none"> <li>Centres</li> <li>Resource Estimation Using the Data</li> <li>Satellite Based Imaging and Data Analysis on Cascade Basis</li> <li>Crop Planning</li> <li>Training of WUA / Farmers</li> <li>Crop and Technology Adoption</li> <li>Water Flow Measurement</li> <li>Water Use Efficiency: Micro Irrigation</li> <li>Water Productivity</li> <li>Participatory Groundwater Management (PGM)</li> </ul>	<ul style="list-style-type: none"> <li>Paddy predominance</li> <li>Insufficient knowledge on raising other crops</li> <li>Lack of seed and other inputs</li> <li>Absence of progressive farmers to take up innovative methods</li> </ul>	<ul style="list-style-type: none"> <li>Support Organization and intensive activities on social mobilization and meetings would be taken up.</li> <li>Training and placing progress individuals from the community.</li> <li>Sensitization through exposure visits and trainings.</li> </ul>
<b>Component B: Promoting Adaptive Sustainable Agriculture Practices</b>			
<b>Climate Smart Diversified Agriculture Production System</b>	<ul style="list-style-type: none"> <li>Agriculture Intervention</li> <li>Horticulture Intervention</li> <li>Implementation Arrangement</li> </ul>	<ul style="list-style-type: none"> <li>Farmers under tank irrigation comfortable with paddy and may not prefer horticulture and plantation</li> </ul>	<ul style="list-style-type: none"> <li>Sensitization through exposure visits and input support</li> </ul>
<b>Innovation and Technology Transfer for Fish Production</b>	<ul style="list-style-type: none"> <li>Augment Quality Fish Seed Production</li> <li>Enhance Fish Production</li> <li>Post-Harvest and Market Access / Linkage</li> <li>Capacity Building</li> </ul>	<ul style="list-style-type: none"> <li>Fishing season is limited in tank</li> <li>Water levels could not be maintained</li> <li>Market is within the village and nearby villages</li> </ul>	<ul style="list-style-type: none"> <li>Secondary source of water in addition to tank water (borewells)</li> <li>Provision of refrigerators at tank level</li> </ul>
<b>Component C: Climate Friendly Market and Agri-Business Promotion</b>			
<b>Post-Harvest Management, Market and Agribusiness Model for Horticultural Crops</b>	<ul style="list-style-type: none"> <li>Rural Markets / Apni Mandi / Direct Markets</li> <li>Low Cost Produce Storage Structures <b>Error! Bookmark not defined.</b></li> <li>Refrigerated Transport Vehicles</li> <li>Evaporative Low Energy Cool Chamber<b>Error! Bookmark not defined.</b></li> <li>Establishment of Cold Storage</li> </ul>	<ul style="list-style-type: none"> <li>Majority of the farmers are growing paddy and few are in horticulture and shifting may take time</li> </ul>	<ul style="list-style-type: none"> <li>To include farmers who are raising horticulture crops to take up storage activities</li> <li>Linkage with National Horticulture Mission for technical and financial assistance</li> <li>Exposure visits to existing storage units and markets</li> </ul>

<b>Activity</b>	<b>Sub-Activities</b>	<b>Key Challenges</b>	<b>Project Approach</b>
			<ul style="list-style-type: none"> <li>• Extensive training on the subjects</li> <li>• Linkages with Resource and Technical agencies</li> </ul>
<b>Agriculture Market Transformation and Value Addition (Agribusiness)</b>	<ul style="list-style-type: none"> <li>• Establishing Market Linkage-eNAM</li> <li>• Supply and Value Chain Analysis</li> <li>• Export Direct Linkage with FPOs / FPCs</li> <li>• Agri Watch</li> <li>• Risk Mitigation Fund (RMF)</li> </ul>	<ul style="list-style-type: none"> <li>• Farmers unwillingness to come forward to collective activities with regards to marketing.</li> <li>• Powerful middlemen in marketing</li> <li>• Dependency on input dealers for inputs</li> </ul>	<ul style="list-style-type: none"> <li>• Conducting feasibility studies in participatory methods.</li> <li>• External Agencies support and handholding.</li> </ul>

## Section 7: Implementation and Institutional Arrangements

### Institutional Arrangement for Tribal Development

Institutional arrangements proposed for tribal development activities in APIIATP are presented in Table 18.

**Table 18: Institutional Arrangements for Tribal Development**

Level	Institution	Location	Vested Authority	Key Function
<b>State</b>	Project Steering Committee	Vijayawada	Chairman of PSC	1. Overall Policy Guidance; 2. Support in Planning (from state perspective); 3. Facilitate / Foster Convergence; 4. TPPF Review and Control
<b>State</b>	PMU	Vijayawada	State Project Director (SPD)	1. TPPF Planning and Management; 2. Coordination with Partner Departments / Institutions; 3. Rendering Technical and Financial Support to DPMUs; 4. Monitoring, Learning and Documentation of TPPF.
<b>District</b>	DPMU	12 districts	Chairman DLIC  District Project Director (DPD)	1. Implementation of TPPF; 2. Coordination with Support Organizations / Other Support Entities; 3. Implementation Planning (Monthly / Annual Planning); 4. TPPF Review; 5. Support to SOs
<b>Cascade</b>	Cascade Coordination and Management Committee	All identified cascades	President of CCMC	1. Planning and coordination of relevant activities amongst the WUAs; 2. Conflict Resolution.
<b>Tank</b>	Water User Association	All identified project tanks	President of WUA	1. Activities as per TPPF

## Monitoring and Evaluation

Monitoring and evaluation activities assume a high level of importance on timely achievement of project objectives and an emphasis on quality outputs and processes. The primary objective of monitoring is to verify the absence of or record environmental and social impacts resulting from the sub-project activities and to ensure compliance with the mitigation measures identified earlier in order to prevent or reduce adverse impacts and enhance positive impacts from project activities. The key indicators for monitoring are presented in Table 19:

**Table 19: Key indicators for Monitoring Tribal Development Activities in APIIATP**

Activity	Sub-Activity	Tribal Inclusion and Development Indicators
<b>Component A: Improving Irrigated Agriculture Efficiency at Farm level</b>		
<b>Institutional Strengthening &amp; Capacity Building of WUAs</b>	<ul style="list-style-type: none"> <li>Formation of New WUAs</li> <li>Capacity Building of WUAs</li> <li>WUA Office Infrastructure</li> <li>Engagement of Para Workers</li> <li>Transparency &amp; Public Disclosure</li> <li>Support Organisation</li> </ul>	<ul style="list-style-type: none"> <li>No. of tribal farmers including women participate in GP meetings</li> <li>No. of tribal farmers including women participated in training programmes</li> <li>No. of WUA offices established in tribal areas</li> <li>Physical and financial contribution in tribal areas</li> <li>No. of Para workers identified and trained</li> <li>No. of meetings held to disclose the plans and its costs</li> <li>Engagement of services of SO</li> </ul>
<b>Improving Small Holder Irrigation System Performance and Resilience</b>	<ul style="list-style-type: none"> <li>Cascade Identification and Tank Selection Process</li> <li>Cascade Development Plan (CDP)</li> <li>Dam Safety Plan Preparation</li> <li>Tank Bund Strengthening &amp; Aligning</li> <li>Catchment Treatment of Cascades</li> <li>Installation / Repair of Head Regulator / Sluice</li> <li>Construction / Repair of Canal System</li> <li>Cleaning Feeder Channels</li> <li>Cleaning Main Canal, Branch Canal &amp; Distributaries</li> </ul>	<ul style="list-style-type: none"> <li>No. of tribal households participated in preparation of plans</li> <li>No. of trainings conducted on plan preparation</li> <li>No. of tribals participated in training programmes on plans preparation</li> <li>No. of tanks systems repaired against the issues identified</li> </ul>
<b>Improving Water Productivity and Efficiency</b>	<ul style="list-style-type: none"> <li>Crop Water Budgeting</li> <li>Strengthening the Data Centres</li> <li>Resource Estimation Using the Data</li> <li>Satellite Based Imaging and Data Analysis on Cascade Basis</li> </ul>	<ul style="list-style-type: none"> <li>No. of meetings held in a year on preparing crop water budgeting, and crop planning</li> <li>No. of satellite images available for tanks against the total number</li> <li>No. of tribal farmers participated in</li> </ul>

Activity	Sub-Activity	Tribal Inclusion and Development Indicators
	<ul style="list-style-type: none"> <li>▪ Crop Planning</li> <li>▪ Training of WUA / Farmers</li> <li>▪ Crop and Technology Adoption</li> <li>▪ Water Flow Measurement</li> <li>▪ Water Use Efficiency: Micro Irrigation</li> <li>▪ Water Productivity</li> <li>▪ Participatory Groundwater Management (PGM)</li> </ul>	<ul style="list-style-type: none"> <li>▪ training programmes</li> <li>▪ No. of modules completed in tribal areas</li> <li>▪ Construction of Cut-throat-flumes against the total tanks in tribal areas.</li> <li>▪ Area under drip, sprinkler and other water saving methods in tribal areas</li> <li>▪ No. of tribal farmers adopted water saving methods</li> <li>▪ No. of tribal PGM farmers</li> </ul>
<b>Component B: Promoting Adaptive Sustainable Agriculture Practices</b>		
<b>Climate Smart Diversified Agriculture Production System</b>	<ul style="list-style-type: none"> <li>▪ Agriculture Interventions</li> <li>▪ Horticulture Interventions</li> <li>▪ Implementation Arrangement</li> </ul>	<ul style="list-style-type: none"> <li>▪ No. of tribal farmers benefited from agriculture interventions</li> <li>▪ No. of tribal farmers benefitted from horticulture interventions</li> <li>▪ Area under horticulture interventions in tribal areas</li> </ul>
<b>Innovation and Technology Transfer for Fish Production</b>	<ul style="list-style-type: none"> <li>▪ Augment Quality Fish Seed Production</li> <li>▪ Enhance Fish Production</li> <li>▪ Post-Harvest and Market Access / Linkage</li> <li>▪ Capacity Building</li> </ul>	<ul style="list-style-type: none"> <li>▪ No. of tribal farmers engaged in fisheries activity</li> <li>▪ Percentage of increase in fish production and productivity</li> <li>▪ No. of trainings conducted on fisheries for tribal farmers</li> <li>▪ No. of tribal farmers participated on fisheries activity</li> </ul>
<b>Component C: Climate Friendly Market and Agri-Business Promotion</b>		
<b>Post-Harvest Management, Market and Agribusiness Model for Horticultural Crops</b>	<ul style="list-style-type: none"> <li>▪ Rural Markets / Apni Mandi / Direct Markets</li> <li>▪ Low Cost Onion / Other Produce Storage Structures</li> <li>▪ Refrigerated Transport Vehicles</li> <li>▪ Mobile Pre-Cooling Unit</li> <li>▪ Evaporative Low Energy Cool Chamber</li> <li>▪ Establishment of Cold Storage</li> </ul>	<ul style="list-style-type: none"> <li>▪ No. of rural godowns constructed in tribal areas</li> <li>▪ No. of tribal farmers taken refrigerated transport vehicles</li> <li>▪ No. of tribal farmers taken mobile pre-cooling unit</li> <li>▪ No. of cool chambers constructed in tribal areas</li> <li>▪ No. of cold storage structures constructed in tribal areas.</li> </ul>
<b>Agriculture Market Transformation and Value Addition (Agribusiness)</b>	<ul style="list-style-type: none"> <li>▪ Establishing Market Linkage-eNAM</li> <li>▪ Supply and Value Chain Analysis</li> <li>▪ Agri Watch</li> <li>▪ Risk Mitigation Fund (RMF)</li> </ul>	<ul style="list-style-type: none"> <li>▪ No. of WUAs able to establish market linkages</li> <li>▪ No. of WUAs done supply and value chain analysis</li> <li>▪ No. of WUAs developed Risk Mitigation Fund.</li> </ul>

Data on the indicators will be collected and reported at appropriate intervals as indicated above as part of the regular project reporting. Project authorities will use this information to aid adaptive management to ensure that targeted environmental and social outcomes are achieved.

## **Grievance Redressal Mechanism**

A GRM will be in place for addressing social, environmental and project related grievances. The GRM will have multi-level structures and processes. An Executive Committee for Grievance Redressal would be set up at the state level and would be chaired by the Principal Secretary, DoWR. This Committee would meet once in every six months and be in charge of overall appeals and supervision of grievance redress

A Project level Grievance Redressal Committee (GRC) would be up at the state level and will be housed within the PMU. It would be headed by the Project Coordinator and would convene monthly meetings. This Committee would prepare six monthly reports and submit to the Executive Committee.

A District Level Grievance Redressal Committee headed by the District Project Directors would supervise addressal of grievances and would meet once every month. The Committee would submit quarterly reports to the District Collector.

Efforts would be made to create awareness about GRC mechanism to the beneficiaries through use of flyers and pamphlets at the village, block and district levels. The GRC will receive and redress all complaints and grievances that relate to project implementation that are formally brought to the GRC by individuals and groups of individuals.

### ***Scope of GRC***

The GRC will receive and redress grievances and complaints that are formally brought to the GRC in writing by the persons and/or group of persons who have a grievance because of the project’s adverse impact on him/her and them. The grievance would, among others, relate to payment of compensation and involuntary resettlement assistance to all project affected persons in accordance with the eligibility criteria as set out in this TPPF.

### ***Process of GRC***

The GRC will receive all grievances/complaints and enter them in the Grievance Register. It will work out a timeframe to redress grievances/complaints if such grievances/complaints are not redressed during the first meeting. It shall be responsible to acknowledge receipt of all grievances/complaints, by registered post. Further, the GRC will consider and redress grievances/complaints through public and transparent process in which all those who have lodged their grievances and complaints in order to facilitate transparency and accountability. It will communicate its decisions/redress in writing to the complainants within a time limit depending on the nature of complaints. GRC decisions are not the final and the grieved and complainants have the right to seek judicial redress if they are not happy with the decisions of GRC. But it should not the paraphrase the constitution fundamental rights.

Names and contact details of all District Project Directors would be communicated to the community along with the process of registering grievances which would include the following steps:

- Open House at the Mandal/ Division and District levels

- By ordinary/registered/speed post addressed to concerned DPD of their area
- Through the Online portal

**Complaints/Grievances Register** will contain (a) Serial Number; (b) Case Number; (c) Name of the Grievied/Complainant; (d) Name of Father/Husband; (e) Gender (f) Age; (g) Full Address; (h) Brief details of grievance/complaint; (i) List of documents, if any, attached; (j) Details of previous grievance/complaint, if any; (k) Date of receipt of grievance/complaint and (l) Date of acknowledgement of grievance/complaint

When closing the complaint, agreement should be made with the complainant on remedy, and both parties should sign their approval of the case being closed and outcome accepted. Copies would be kept in both hard copy and electronic by both parties.

### ***Right to Seek Legal Redress***

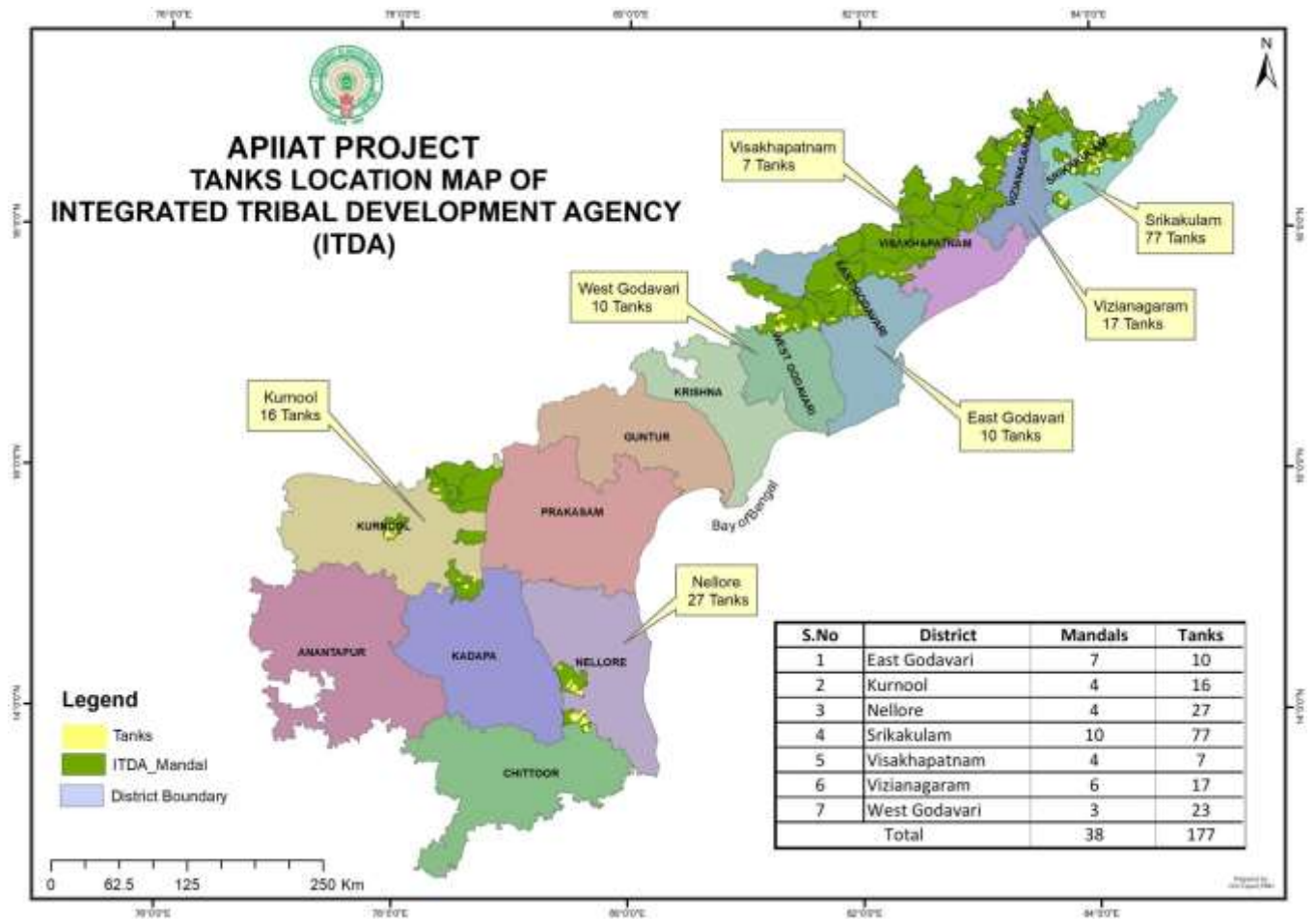
The grievied/complainant will have the right to seek legal redress through the judicial system if he/she or they are not satisfied with the decisions of the GRC. The option of seeking redress through the GRC or through the judicial system will be explained to project affected persons during the process of public consultation and participation. But it should not paraphrase the constitutional fundamental rights.

### ***Mid-Term Evaluation***

There will a mid-term assessment of TPPF to take stock of project impact on tribal communities in Scheduled Areas and non-Scheduled Areas; and to recommend corrective action, as necessary. This mid-term assessment of TPPF could be conducted prior to the Mid-term Review (MTR) mission.

# ANNEXURES

**Figure 1 Map showing ITDA Mandals and Number of APIIATP tanks**



**Annex Table 20: APIATP List of selected tanks in ITDA Mandals**

Sl	No. of Tanks	District	Mandal	Tank Name	Cascade No.	Village	Remarks	ITDA
1	1	East Godavari	Gangavaram	Yerrakonda MI tank	Independent	Vemula	250	ITDA_Tanks
2	2	East Godavari	Maredumilli	Garricalava	Independent	Narasapuram	Phase_II	ITDA_Tanks
3	3	East Godavari	Maredumilli	P.G.Lanka MI Tank	Independent	P.G.Lanka	Phase_II	ITDA_Tanks
4	4	East Godavari	Devipatnam	Janakamma Tank	Independent	Devaram	Phase_II	ITDA_Tanks
5	5	East Godavari	Maredumilli	D.V.Kota MI Tank	Independent	D.V.Kota	Phase_II	ITDA_Tanks
6	6	East Godavari	Maredumilli	Setagondi Vagu	Independent	Nurupudi	Phase_II	ITDA_Tanks
7	7	East Godavari	Maredumilli	Gorramamidi MI Tank	Independent	Gorramamidi	Phase_II	ITDA_Tanks
8	8	East Godavari	Gangavaram	Neelepudi Anicut Scheme	Independent	Neelepudi	Phase_II	ITDA_Tanks
9	9	East Godavari	Gangavaram	Pedagarilapadu MI Tank	Independent	Pedagarilapadu	Phase_II	ITDA_Tanks
10	10	East Godavari	Devipatnam	Devaram	Independent	Devaram	Phase_II	ITDA_Tanks
11	1	Kurnool	Chagalamarri	Mutyalapadu MI Tank	Cascade 04	Mutyalapadu	250	ITDA_Tanks
12	2	Kurnool	Allagadda	Pothuraju Cheruvu	Cascade 04	Ahobilam	250	ITDA_Tanks
13	3	Kurnool	Veldurthy	Khandan MI Tank	Cascade 12	Veldurthy	Phase_II	ITDA_Tanks
14	4	Kurnool	Jupadu Bunglow	Thangadencha MI.Tank	Independent	Thangadencha	Phase_II	ITDA_Tanks
15	5	Kurnool	Veldurthy	Bhogolu Tank	Cascade 11	Bhogolu	Phase_II	ITDA_Tanks
16	6	Kurnool	Veldurthy	Sudepalli MI Tank	Cascade 11	Sudepalli	Phase_II	ITDA_Tanks
17	7	Kurnool	Veldurthy	Vittalarayamorsu Katta MI Tank	Independent	Govaradhanagiri	Phase_II	ITDA_Tanks
18	8	Kurnool	Veldurthy	Narsapuram MI Tank	Cascade 12	Narsapuram	Phase_II	ITDA_Tanks
19	9	Kurnool	Veldurthy	L.Banda MI Tank	Independent	Laxminagaram	Phase_II	ITDA_Tanks
20	10	Kurnool	Veldurthy	Veerannagattu MI Tank	Independent	Veldurthi	250	ITDA_Tanks
21	11	Kurnool	Veldurthy	Chowti Cheruvu	Cascade 12	Ratnapalli	Phase_II	ITDA_Tanks
22	12	Kurnool	Veldurthy	Peremula Tank	Independent	Peremula	Phase_II	ITDA_Tanks
23	13	Kurnool	Allagadda	Bhavasi and Utlavagu (Matamvari Cheruvu)	Independent	Ahobilam	250	ITDA_Tanks
24	14	Kurnool	Jupadu Bunglow	Mandlem Tank	Independent	Mandlem	250	ITDA_Tanks
25	15	Kurnool	Jupadu Bunglow	Parumanchala MI Tank	Independent	Parumanchala	250	ITDA_Tanks
26	16	Kurnool	Allagadda	Vakkileru Anicut	Independent	Kotakandukuru	250	ITDA_Tanks
27	1	Nellore	Rapur	Jorepalli Tank	Independent	Jorepalli	250	ITDA_Tanks
28	2	Nellore	Rapur	Dabala Tank	Independent	Rapur	250	ITDA_Tanks
29	3	Nellore	Rapur	Siddavaram Tank	Independent	Siddavaram	250	ITDA_Tanks
30	4	Nellore	Venkatagiri	Kalavalapudi Tank	Independent	Kalavalapudi	250	ITDA_Tanks
31	5	Nellore	Venkatagiri	Petlur Tank	Independent	Petlur	250	ITDA_Tanks
32	6	Nellore	Venkatagiri	Tripuranthakam bhtlapalli Tank	Cascade 24	T.B.Palle	Phase_II	ITDA_Tanks

Sl	No. of Tanks	District	Mandal	Tank Name	Cascade No.	Village	Remarks	ITDA
33	7	Nellore	Venkatagiri	Palakondasatram Tank	Cascade 24	Palakondasatram	Phase_II	ITDA_Tanks
34	8	Nellore	Venkatagiri	Somasani Gunta	Cascade 24	Somasanigunta	Phase_II	ITDA_Tanks
35	9	Nellore	Venkatagiri	Dharmapuram tank	Cascade 24	Dharmapuram	Phase_II	ITDA_Tanks
36	10	Nellore	Venkatagiri	Chintagunta Tank	Cascade 25	Chintagunta	Phase_II	ITDA_Tanks
37	11	Nellore	Venkatagiri	Venkatagiri Tank	Cascade 25	Venkatagiri	Phase_II	ITDA_Tanks
38	12	Nellore	Venkatagiri	Bangarupuram Tank	Cascade 25	Bangarupuram	Phase_II	ITDA_Tanks
39	13	Nellore	Venkatagiri	Kalapadu Tank	Cascade 25	Kalapadu	Phase_II	ITDA_Tanks
40	14	Nellore	Venkatagiri	Kandalalapadu Tank	Cascade 26	Kandalalapadu	Phase_II	ITDA_Tanks
41	15	Nellore	Venkatagiri	Papamambapuram Tank	Cascade 26	Papamambapuram	Phase_II	ITDA_Tanks
42	16	Nellore	Venkatagiri	Palemkota Tank	Cascade 27	Palemkota	Phase_II	ITDA_Tanks
43	17	Nellore	Venkatagiri	Siddavaram Tank	Cascade 27	Siddavaram	Phase_II	ITDA_Tanks
44	18	Nellore	Venkatagiri	Balasamudram Tank	Cascade 27	Balasamudram	Phase_II	ITDA_Tanks
45	19	Nellore	Venkatagiri	Busapalem Tank	Independent	Busapalem	Phase_II	ITDA_Tanks
46	20	Nellore	Rapur	Tegicherla Tank	Independent	Tegicherla	Phase_II	ITDA_Tanks
47	21	Nellore	Venkatagiri	K Upparapalli Tank	Independent	K Upparapalli	250	ITDA_Tanks
48	22	Nellore	Kaluvoya	Chilakalampadu Tank	Independent	Chelikalampadu	Phase_II	ITDA_Tanks
49	23	Nellore	Jaladanki	Gotlagunta Tank	Independent	Gotlagunta	Phase_II	ITDA_Tanks
50	24	Nellore	Rapur	Pangali Large Tank	Independent	Pangali	Phase_II	ITDA_Tanks
51	25	Nellore	Rapur	Paravolu Tank	Independent	Paravolu	Phase_II	ITDA_Tanks
52	26	Nellore	Rapur	Yepuru Tank	Independent	Yepuru	Phase_II	ITDA_Tanks
53	27	Nellore	Rapur	Rapur Big Tank	Independent	Rapur	Phase_II	ITDA_Tanks
54	1	Srikakulam	Burja	Gundamma Tank	Cascade 01	Sankurada	150	ITDA_Tanks
55	2	Srikakulam	Burja	Laxmi Tank	Cascade 01	PL Devi Peta	150	ITDA_Tanks
56	3	Srikakulam	Burja	Buchanna Karra Tank	Cascade 01	Sankurada	150	ITDA_Tanks
57	4	Srikakulam	Burja	Kurmasagaram	Cascade 02	T.V. Ramabhadra Raju Peta	150	ITDA_Tanks
58	5	Srikakulam	Burja	Peramma Cheruvu	Cascade 02	Somidavalasa	150	ITDA_Tanks
59	6	Srikakulam	Burja	Nallakarra Tank	Cascade 02	Thimadam	150	ITDA_Tanks
60	7	Srikakulam	Burja	Kotha Tank	Cascade 03	Singannapalem	150	ITDA_Tanks
61	8	Srikakulam	Burja	Singanna Cheruvu	Cascade 03	Singannapalem	150	ITDA_Tanks
62	9	Srikakulam	Burja	Neredumanu Cheruvu	Cascade 03	Singannapalem	150	ITDA_Tanks
63	10	Srikakulam	Etcherla	Pilakavani Tank	Cascade 04	Kuppili	150	ITDA_Tanks
64	11	Srikakulam	Etcherla	Mangala Tank	Cascade 04	Kuppili	150	ITDA_Tanks
65	12	Srikakulam	Tekkali	Pothala Tank	Cascade 10	Patha Nowpada	Phase_II	ITDA_Tanks
66	13	Srikakulam	Tekkali	Gangaram Tank	Cascade 10	Patha Nowpada	Phase_II	ITDA_Tanks
67	14	Srikakulam	L.N. Peta	Racha Tank	Cascade 13	Karaka Valasa	Phase_II	ITDA_Tanks

Sl	No. of Tanks	District	Mandal	Tank Name	Cascade No.	Village	Remarks	ITDA
68	15	Srikakulam	L.N. Peta	Vajja Banda	Cascade 13	Karaka Valasa	Phase_II	ITDA_Tanks
69	16	Srikakulam	L.N. Peta	Chittivani Tank	Cascade 14	Karaka Valasa	Phase_II	ITDA_Tanks
70	17	Srikakulam	L.N. Peta	Chinna Tank	Cascade 14	Cintala Badavanji	Phase_II	ITDA_Tanks
71	18	Srikakulam	Saravakota	Voora Tank	Cascade 15	Bydalapuram	Phase_II	ITDA_Tanks
72	19	Srikakulam	saravakota	Naidu Tank	Cascade 15	Bydalapuram	Phase_II	ITDA_Tanks
73	20	Srikakulam	Meliaputti	Kanapala Cheruvu	Independent	Surjini	Phase_II	ITDA_Tanks
74	21	Srikakulam	Pathapatnam	Nayudu Cheruvu	Cascade 27	Routhupuram	Phase_II	ITDA_Tanks
75	22	Srikakulam	Pathapatnam	Neradi Cheruvu	Cascade 27	Routhupuram	Phase_II	ITDA_Tanks
76	23	Srikakulam	Pathapatnam	Pedda Cheruvu	Cascade 27	Routhupuram	Phase_II	ITDA_Tanks
77	24	Srikakulam	Hiramandalam	Pedda Cheruvu	Independent	Tampa	Phase_II	ITDA_Tanks
78	25	Srikakulam	L.N. Peta	Ramasagaram Tank	Independent	Mallikarjunapuram	Phase_II	ITDA_Tanks
79	26	Srikakulam	L.N. Peta	Ganga Sree Cheruvu	Independent	Kaviti	Phase_II	ITDA_Tanks
80	27	Srikakulam	Pathapatnam	Jodu Cheruvu	Independent	Routhupuram	Phase_II	ITDA_Tanks
81	28	Srikakulam	L.N. Peta	Kotha Tank	Independent	Yanbram	Phase_II	ITDA_Tanks
82	29	Srikakulam	L.N. Peta	Voora Cheruvu	Cascade 36	Mallikarjunapuram	Phase_II	ITDA_Tanks
83	30	Srikakulam	L.N. Peta	Injamna Cheruvu	Cascade 36	Sumanthapuram	Phase_II	ITDA_Tanks
84	31	Srikakulam	L.N. Peta	Badhrakali Sagaram	Cascade 38	Shyamalapuram	Phase_II	ITDA_Tanks
85	32	Srikakulam	L.N. Peta	Regula Karra Cheruvu	Cascade 38	Shyamalapuram	Phase_II	ITDA_Tanks
86	33	Srikakulam	Tekkali	Komati Tank	Independent	Lingalavalasa	Phase_II	ITDA_Tanks
87	34	Srikakulam	Laveru	Devulavani Tank	Independent	Bejjipuram	Phase_II	ITDA_Tanks
88	35	Srikakulam	Burja	Kasi Sagaram Tank	Independent	Burja	Phase_II	ITDA_Tanks
89	36	Srikakulam	Laveru	Narayana Sagaram Tank	Independent	Budumuru	Phase_II	ITDA_Tanks
90	37	Srikakulam	Hiramandalam	Dhammanna Tank	Independent	Jagannadhapuram	Phase_II	ITDA_Tanks
91	38	Srikakulam	Hiramandalam	Voora Tank_Rugada	Independent	Rugada	Phase_II	ITDA_Tanks
92	39	Srikakulam	Laveru	Rowthuvani Tank	Cascade 47	Gurralapalem	Phase_II	ITDA_Tanks
93	40	Srikakulam	Laveru	Nidagantlam Tank	Cascade 47	Adapaka	Phase_II	ITDA_Tanks
94	41	Srikakulam	Saravakota	Naidu Tank	Independent	Maluva	Phase_II	ITDA_Tanks
95	42	Srikakulam	Saravakota	Kanapala Tank	Independent	Bonthu	Phase_II	ITDA_Tanks
96	43	Srikakulam	Saravakota	Bandaruvani tank	Independent	Kummarigunta	Phase_II	ITDA_Tanks
97	44	Srikakulam	Saravakota	Gopala Sagaram	Independent	Gopalapuram	Phase_II	ITDA_Tanks
98	45	Srikakulam	Saravakota	Pedda Tank_Anguru	Independent	Anguru	Phase_II	ITDA_Tanks
99	46	Srikakulam	Saravakota	Pedda Tank_Chodasamudram	Independent	Chodasamudram	Phase_II	ITDA_Tanks
100	47	Srikakulam	Burja	Komati Cheruvu	Independent	Kondapet	Phase_II	ITDA_Tanks
101	48	Srikakulam	Burja	Voora Cheruvu	Cascade 43	Lakkupuram	Phase_II	ITDA_Tanks
102	49	Srikakulam	Burja	Patrudu Cheruvu	Independent	Tuddali	Phase_II	ITDA_Tanks
103	50	Srikakulam	Burja	Kotta Cheruvu	Cascade 44	Gangammipeta	Phase_II	ITDA_Tanks

Sl	No. of Tanks	District	Mandal	Tank Name	Cascade No.	Village	Remarks	ITDA
104	51	Srikakulam	Burja	Rayikara Cheruvu	Independent	K.K.Rajapuram	Phase_II	ITDA_Tanks
105	52	Srikakulam	Burja	Pedda Cheruvu	Cascade 43	Marripada	Phase_II	ITDA_Tanks
106	53	Srikakulam	Burja	Neelamma Cheruvu	Cascade 44	Neeladevipuram	Phase_II	ITDA_Tanks
107	54	Srikakulam	Burja	Venkata Sagaram	Independent	O V Peta	Phase_II	ITDA_Tanks
108	55	Srikakulam	Burja	Rambhadra Sagaram	Cascade 44	T.Ramabhadrarajupeta	Phase_II	ITDA_Tanks
109	56	Srikakulam	Jalumuru	Gopanna Cheruvu	Independent	Yalamanchili	Phase_II	ITDA_Tanks
110	57	Srikakulam	Jalumuru	Nagamma Cheruvu	Independent	Gotivada	Phase_II	ITDA_Tanks
111	58	Srikakulam	Jalumuru	Pedda Cheruvu	Independent	Gotivada	Phase_II	ITDA_Tanks
112	59	Srikakulam	Jalumuru	Munu Kotu Ramayya Cheruvu	Independent	Jalumuru	Phase_II	ITDA_Tanks
113	60	Srikakulam	Jalumuru	Pedda Cheruvu	Independent	Pedda Dugam	Phase_II	ITDA_Tanks
114	61	Srikakulam	Jalumuru	Gavamma Cheruvu	Independent	Sairigam	Phase_II	ITDA_Tanks
115	62	Srikakulam	Jalumuru	Pedda Tank	Independent	Talatarya	Phase_II	ITDA_Tanks
116	63	Srikakulam	L.N. Peta	Kari Tank	Cascade 09	Chorlangi	250	ITDA_Tanks
117	64	Srikakulam	L.N. Peta	Pedda Cheruvu	Cascade 09	Ravi Chendri	250	ITDA_Tanks
118	65	Srikakulam	L.N. Peta	Boorja Cheruvu	Cascade 09	Ravi Chendri	250	ITDA_Tanks
119	66	Srikakulam	Tekkali	Chinnappa Tank	Independent	Pata Nowpada	250	ITDA_Tanks
120	67	Srikakulam	L.N. Peta	Jalarivani Tank	Independent	Venkampeta	250	ITDA_Tanks
121	68	Srikakulam	Tekkali	Nandasagaram Tank	Independent	Raipadu	250	ITDA_Tanks
122	69	Srikakulam	Tekkali	Ramasagaram	Cascade 07	Patha Nowpada	250	ITDA_Tanks
123	70	Srikakulam	Tekkali	Anantasagaram	Cascade 07	Patha Nowpada	250	ITDA_Tanks
124	71	Srikakulam	Tekkali	Kotha Tank_Tekkali	Cascade 07	Patha Nowpada	250	ITDA_Tanks
125	72	Srikakulam	L.N. Peta	Tamara Cheruvu	Cascade 08	Yembram	250	ITDA_Tanks
126	73	Srikakulam	L.N. Peta	Chakali Cheruvu	Cascade 08	Kommuvalasa	250	ITDA_Tanks
127	74	Srikakulam	L.N. Peta	Lingam Naidu Chruvu	Cascade 08	Kommuvalasa	250	ITDA_Tanks
128	75	Srikakulam	Saravakota	Saribanti Tank(Kanapala Tank)	Independent	Govardhanapuram	Phase_II	ITDA_Tanks
129	76	Srikakulam	Meliaputti	Pedda Tank	Independent	Banapuram	Phase_II	ITDA_Tanks
130	77	Srikakulam	Hiramandalam	Asirinaidu Tank	Independent	Kondaragolu	Phase_II	ITDA_Tanks
131	1	Visakhapatnam	Koyyuru	Kinchavanipalem Reservoir	Independent	Kinchavanipalem	Phase_II	ITDA_Tanks
132	2	Visakhapatnam	Koyyuru	Lubharthi Reservoir	Independent	Lubharthi	250	ITDA_Tanks
133	3	Visakhapatnam	Chintapalle	Tajangi Reservoir	Independent	Tajangi	250	ITDA_Tanks
134	4	Visakhapatnam	Chintapalle	Pedda Tank	Independent	Choudupalli	250	ITDA_Tanks
135	5	Visakhapatnam	Golugonda	Latchiraju Tank	Cascade 01	Narayanapuram	150	ITDA_Tanks
136	6	Visakhapatnam	Golugonda	Singanna Tank	Cascade 01	Narayanapuram	150	ITDA_Tanks
137	7	Visakhapatnam	Arukuvalley	Mini Reservoir across Gowdigedda	Independent	Gowdigedda	Phase_II	ITDA_Tanks
138	1	Vizianagaram	Makkuva	Chenchunaidu tank	Cascade 10	M.Venkampeta	Phase_II	ITDA_Tanks
139	2	Vizianagaram	Makkuva	Yerra Tank	Cascade 10	Kannanpeta	Phase_II	ITDA_Tanks

Sl	No. of Tanks	District	Mandal	Tank Name	Cascade No.	Village	Remarks	ITDA
140	3	Vizianagaram	Makkuva	Mallamma tank	Cascade 11	A.Venkampeta	Phase_II	ITDA_Tanks
141	4	Vizianagaram	Makkuva	V Ayyappa Tank	Cascade 11	A.Venkampeta	Phase_II	ITDA_Tanks
142	5	Vizianagaram	Salur	Perasagaran tank	Cascade 14	Salur	Phase_II	ITDA_Tanks
143	6	Vizianagaram	Salur	Chepavani banda	Cascade 14	Salur	Phase_II	ITDA_Tanks
144	7	Vizianagaram	Komarada	Sabinesh Tank	Independent	Parasurampuram	Phase_II	ITDA_Tanks
145	8	Vizianagaram	Makkuva	Appala Naidu Tank	Independent	Chappa Butchammapeta	Phase_II	ITDA_Tanks
146	9	Vizianagaram	Makkuva	Chintala Tank	Independent	Venkata Bhairipuram	Phase_II	ITDA_Tanks
147	10	Vizianagaram	Gl Puram	Dummandi Reservoir	Independent	Dummandi	Phase_II	ITDA_Tanks
148	11	Vizianagaram	Komarada	Chepalakrishnamma Dora Tank	Independent	Konavalasa	Phase_II	ITDA_Tanks
149	12	Vizianagaram	Kurupam	Nagulagedda Tank	Independent	Kurupam	Phase_II	ITDA_Tanks
150	13	Vizianagaram	Kurupam	Lakela Tank	Independent	Kurupam	Phase_II	ITDA_Tanks
151	14	Vizianagaram	Parvathipuram	Lankela Tank	Independent	Balagudaba	Phase_II	ITDA_Tanks
152	15	Vizianagaram	Parvathipuram	Kanumalla tank	Independent	Venkataraidupeta	Phase_II	ITDA_Tanks
153	16	Vizianagaram	Parvathipuram	Muduraju Tank	Independent	Venkatanissankapuram	Phase_II	ITDA_Tanks
154	17	Vizianagaram	Parvathipuram	Boddidevaragedda System	Independent	Mulaga	Phase_II	ITDA_Tanks
155	1	West Godavari	Buttaigudem	Akamma Rangapuram tank	Independent	Buttaigudem	250	ITDA_Tanks
156	2	West Godavari	Buttaigudem	Allicalava Tank	Independent	Manchulavarigudem	250	ITDA_Tanks
157	3	West Godavari	Buttaigudem	Andachandala Tank	Independent	Antarvedigudem	250	ITDA_Tanks
158	4	West Godavari	Polavaram	Burugugadda vari Kunta Tank	Independent	Burugugadda vari Kunta Tank	250	ITDA_Tanks
159	5	West Godavari	Polavaram	Kothuru tank	Independent	Pragadapalli	250	ITDA_Tanks
160	6	West Godavari	Buttaigudem	Puntha Tank	Independent	Reddi Ganapavaram	250	ITDA_Tanks
161	7	West Godavari	Polavaram	Venkanna Tank	Cascade 06	Polavaram	250	ITDA_Tanks
162	8	West Godavari	Polavaram	Kamayamma Tank	Cascade 06	Polavaram	250	ITDA_Tanks
163	9	West Godavari	Polavaram	Gadala Tank	Cascade 06	Polavaram	250	ITDA_Tanks
164	10	West Godavari	Jeelugumilli	Ura Tank	Independent	Jeelugumilli	250	ITDA_Tanks
165	11	West Godavari	Buttaigudem	Jaggppa tank	Cascade 04	Buttaigudem	250	ITDA_Tanks
166	12	West Godavari	Buttaigudem	Desalavarikattu Tank	Cascade 04	Lakshmugudem	250	ITDA_Tanks
167	13	West Godavari	Buttaigudem	Talla Tank	Cascade 04	Bosarajupalli	250	ITDA_Tanks
168	14	West Godavari	Buttaigudem	Lothuvagu Tank	Independent	Buruguvada	250	ITDA_Tanks
169	15	West Godavari	Buttaigudem	Gubbisakunta tank	Independent	Buttaigudem	250	ITDA_Tanks
170	16	West Godavari	Buttaigudem	Tank across Junnulaolu	Independent	Gowrampeta	Phase_II	ITDA_Tanks
171	17	West Godavari	Buttaigudem	Utalalava Tank	Independent	Rajanagaram	Phase_II	ITDA_Tanks
172	18	West Godavari	Buttaigudem	Malamettavagu Tank	Independent	Merakagudem	Phase_II	ITDA_Tanks
173	19	West Godavari	Buttaigudem	Chinna Tank	Independent	Seetharamanagaram	Phase_II	ITDA_Tanks

Sl	No. of Tanks	District	Mandal	Tank Name	Cascade No.	Village	Remarks	ITDA
174	20	West Godavari	Buttaigudem	Moddula tank	Independent	Jainavarigudem	Phase_II	ITDA_Tanks
175	21	West Godavari	Buttaigudem	Yerra Tank	Independent	Kotanagavaram	Phase_II	ITDA_Tanks
176	22	West Godavari	Polavaram	Govindarajulu Tank	Independent	Vinjaram	Phase_II	ITDA_Tanks
177	23	West Godavari	Buttaigudem	Local Vagu Tank	Independent	Inumuru	Phase_II	ITDA_Tanks