

Mission Kakatiya: Aims and Achievement

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Abstract:

Agriculture is the old occupation in India. Owing to the state's geographical position. About 55% of Telangana state's population is depended on agriculture and allied sectors for their livelihoods. Agriculture in Telangana is depended on rainfall. The average annual rainfall in the state is about 906 mm. 80% of which is received from south-west monsoons (AGRI. ACTION PLAN (2016-17) of Telangana). So the people of the state are dependent on the tanks. The topography and rainfall pattern in the state have made tank irrigation an ideal one. Tanks have been the life of Telangana's agriculture. Tanks not only used to the agriculture purpose but also it has been helping in providing drinking water to villages, employment opportunity to the rural poor. Telangana State government started the Mission Kakatiya, Mana Ooru – Mana Cheruvu (our village-our tank), programme to develop and restore the tanks all over the state nearly 46,531. The government is aiming to complete the restoration of all the tanks in five years @20% of the tanks each year

Keywords: Agriculture, Irrigation, Tanks, Mission Kakatiya, Restoration

Introduction:

Tanks based irrigation is an important feature of Telangana. Construction of tanks has been an old activity in Telangana. Agriculture now produces only 30% of Telangana income but it is the basis for survival of nearly 80% of the population. For agriculture, especially in the semi-arid tropics, irrigation is a key element in raising land productivity and assuring stability of livelihoods (Pingle G 2011). In Kakatiya regime tanks were constructed in a planned and technically expertised way. Tanks such as Ramappa, Pakala, Laknavaram, Ghanapuram Bayyaram which built by Kakatiyas resemble seas. Tanks were significantly aided agriculture and prosperity of the Kakatiyas. Qutubshahis and Asafjashis who reigned this region for centuries after Kakatiyas also built hundreds of big and small tanks. During the period of Andhra rulers since 1956, tanks in Telangana were neglected. Government of Telangana desires to uphold the vision of Kakatiyas which envisages revival and restoration of Minor irrigation sources in Telangana by name "Mission Kakatiya".

Review of literature:

1. **Pinle G 2011:** Explained the changes in irrigation sources during the period 1875-2009. This study focussed on three sources of irrigation canal, tank and well and their variations over time in Telangana. He found that a drastic decline in tank irrigation.
2. **Vakulabharanam 2004:** Mainly focussed on agricultural development corresponding to growth in irrigation of last three decades. In Telangana the mentioned that irrigation in the state increased but due to expansion of well (tube & dug). This has a negative impact on ground water levels.

3. **Sakhthi vadivel R & etc (2004):** Rejuvenating irrigation tanks through local institutions. Economic and political weekly p.p. 3521-3526. In this article stated that with limited water resource vagarios of the monsoon and the looming water scarcity in many parts of India, water preservation and use by medium and micro water retentive structures have assumed great importance.
4. **Ambumozhi V. (2001):** “Towards improved performance of irrigation tanks in semi-arid regions of India: modernization opportunities and challenges” kluwer academic publisher printed in Netherlands wrote that tank irrigation is a profitable technology in economic, environmental and social terms but under present conditions of management it is rapidly deteriorating.
5. **Janakarajan S (1993):** In search of tanks: Some hidden facts: Stated that institutional and physical factors caused to the destruction of the tanks at various places.

Content:

Historically tanks were main source to irrigation for the agricultural land in Telangana. Most of the Chief Ministers of the combined Andhra Pradesh State were from Andhra and Rayalaseema regions. They having the consciousness on their regions and developed the minor and medium irrigation projects and ignored development of the Telangana. These Governments successfully ignored the maintenance and development of tanks and allowed them to face extinction by way of siltation, cracks, intrusions etc. Demographical pressures, encroachments of tank beds by local leaders, environmental degradation improved technologies like tube well irrigation ae the some of the reasons that led to destruction of the tanks.

From the below table it can be observe that net irrigated area in Telangana has been decreasing.

Table 1: Net Irrigated Area in Telangana (in lakh ha)

Year	Net Irrigated Area (lakh ha.)	Source wise Net Irrigated Area (%)		
		Canals	Tanks	Wells
1956-57	8.01	14.55	66.19	16.20
1970-72	8.50	23.38	38.93	25.24
1980-82	10.34	27.25	37.35	33.0
1990-92	14.85	22.76	25.59	47.40
2001-05	13.44	12.07	12.29	72.47
2005-07	16.95	15.31	12.86	71.82
2008-09	18.28	11.55	13.03	72.09
2009-10	14.93	9.18	13.82	84.33

2010-11	20.04	15.76	11.87	69.63
2011-12	19.85	16.37	9.22	71.69
2012-13	17.74	5.07	8.91	83.77
2013-14	22.89	12.67	10.05	74.83

Source: data above table up to 2007 from Gautam Pingle. (2011), Socio Economic outlook of 2015, Government of Telangana

Objectives of the programme:

The objective of Mission Kakatiya is to enhance the development of agriculture based income for small and marginal farmers by strengthening of the minor irrigation projects, adopting a comprehensive programme for restoration of tanks. Restoration of the tanks would involve the following components.

1. Silt removal and silt application
2. Restoration of feeder channels to the tank
3. Repairs to Bund, weir and sluices
4. Re-sectioning of irrigation channels and repairs to CM & CD works
5. Raising of FTL (Full Tank Level), wherever possible.

As per studies carried out by ICRISAT the following advantages are observed.

1. The water retention capacity of the soil will increase there by decreasing number of wettings.
2. De-silting can improve ground water recharge and drinking water facility to cattle in the summer.
3. Due to de-silting, it is observed that the fluoride content is reduced considerably in the ground water.
4. Silt can be used as Nutrient/fertilizer to the plant which generally reduces the usage of fertilizers as well as pesticides.
5. The yield of the crop will be increased.

Impacts of Mission Kakatiya Programme:

To have a transparent impact assessment the Government have entrusted the task to a third party named entrusted the task to a third party named M/s. NABCONS a sister concern of NABARD.

Researchers of Chicago University consist of Xavier Gine, Anup Malani, Aprajit Mahojan and Manasawini Rao also worked on this and submitted their report.

Findings of the above agencies were as follows:

1. **Tank silt Application:** As the fertile silt dug up from the tanks was used in the cultivated lands of farmers and it increased the fertility of soil and decrease the use of fertilizers. The assessment survey shows a decrease in consumption of chemical fertilizers by 35-50%. This resulted in reduced expenditure on fertilizers by 27.60%. Further the tanks silt increases crop yields, reduction of soil-erosion, increase in soil moisture retention.
2. **Improvement of ground water level:** Due to lack of water storage facilities in Telangana most of the farmers were depended on the tube well and wells. Digging of the water from the ground has become much cost and also scarcity of electricity led to the farmers suicides. Another good impact

of Mission Kakatiya is increase in storage water which leads to improve the ground water level. The average rise in ground water level was 6.91 mts in 2013-14 to 9.02 mts in the year 2016.

3. **Gap Ayacut:** The gap Ayacut in the year 2013-14 is 42.40% where as it is decreased to 23.20% in the year 2016-17.
4. **Fisheries:** Fishermen community is the other major beneficiary of Mission Kakatiya apart from farmers. Longer storage of water in the tanks has resulted increase in fish weight and so the yield. The average increase is 36-39% yield.
5. **Irrigation intensity:** Total cropped area Khariff and Rabi in Ayacut has been increased by 45.60% over the base year. After Mission Kakatiya programme retention capacity in the tanks increased in the base year, the irrigation intensity was 88.40% and it is increase to 134% after implementation of Mission Kakatiya.
6. **Crop Yield:** Increase is witnessed in the yields of Paddy, Cotton and jawar after Mission Kakatiya implementation. The increase is more significant in Rabi Paddy 19.60% and Cotton 11.60%
7. **Increasing the employment opportunity:** Development of agriculture not only giving income to the farmers but also to the wage labours, carpenters, black smith, etc. planting of toddy trees around the tank giving employment opportunity to the toddy tappers. It also gives employment to tractor and proclain drivers and also income to owners of the machines.

Conclusion:

Restoration of tanks by the government in the name of “Mission Kakatiya” with tagline of ‘Mana Ooru - Mana Cheruvu’ is a wonderful programme. By this programme we notice improvement of the agriculture productivity, reduction of poverty, increase the ground water level and increase the employment opportunities. By this mission we can see all round development in rural Telangana.

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