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Jaladhara Program - Water Scarcity, Role and Responsibility of Water Users Associations (WUAS) in Andhra Pradesh

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Abstract: *The Andhra Pradesh government has launched the "Jaladhara" programme, an ambitious 100-day action plan initiated on April 6, 2026, to combat water scarcity, particularly in drought-prone regions like Rayalaseema. This mission run until July 14, 2026, aims to make every citizen a stakeholder in water conservation and transform the state into a drought-free region. To enhance the productivity of resources invested in irrigation sector, Government of India, as the case in other developing economies, has opted for paradigm shift in governance by forming the "Water User Associations" and devolving the water governance. However, after a decade of its implementation, performance varies from place to place with a direct implication on income levels of agrarian community. In this study across three different states of India, results suggests that various factors such as lack of political will, capture of rural elite, lack of representation of all stakeholders, spread of Water User Association, leadership etc. are playing important role in either making or killing this meaningful shift. In this paper, these aspects are discussed in detail.*

Keywords: *Jaladhara Program - Water Scarcity, Role and Responsibility of Water Users Associations (WUAs) In Andhra Pradesh*

I. INTRODUCTION

Water is the engine that drives the domestic, industrial, and agricultural progress of a country, and increasing water scarcity in India has made water management a national priority. With 16 per cent of the world's population and only 4 per cent of the world's water resources.¹ India is severely water-stressed. Availability and accessibility to water is the main driver of economic development. India is home to the highest number of rural people in the world without access to clean drinking water (63 million people, according to Water Aid Reports) and the problem is particularly severe in rural areas. Water levels are dropping rapidly due to over-exploitation and lack of groundwater recharging. India is the highest user of groundwater in the world, filling 85 per cent of rural demand (more than 60 % for crop irrigation),² consuming more than 70 per cent of what is available, and only capturing 8 percent of rainwater.³ Unregulated extraction and non-replenishment has caused groundwater to fall drastically. Work with communities to spread awareness of the importance of conserving water resources is a key priority of Andhra Pradesh. Programs on water awareness and water-related health topics provide vital information and resources to villagers.⁴

Water has spill over effect –excess use of it by some individuals will discriminate others to access it. Thus, the importance of water in economic development made a judicious management of water resources in policy issues across continents. The need for the action in this direction is growing, as countries and communities across the globe are increasingly experiencing of water stress. The growing water stress represents the culmination of gross neglect and mismanagement of water resources over the years. It could be argued that the problem of water scarcity is not due to the absolute shortage of water, but the poorer mechanisms for conservation, distribution, and efficient use of it.⁵

Inspired by the Prime Minister Shri Narendra Modi's appeal in the 135th edition of Mann Ki Baat to sustain the momentum of "Catch the Rain", communities across the country have intensified efforts under the Jal Sanchay Jan Bhagidari: Catch the Rain (JSJB:CTR) campaign. Vizianagaram district of Andhra Pradesh has emerged as a compelling example of how Jan Bhagidari, coupled with scientific water management and convergence of government programmes, can significantly enhance groundwater recharge and strengthen long-term water security.

The Jaladhara-Jalaharathi scheme is a water conservation and water security initiative launched by the Government of Andhra Pradesh under Chief Minister N. Chandrababu Naidu. The program aims to combat drought, enhance groundwater levels, desilt water bodies, repair canals, and restore traditional minor irrigation tanks and feeder channels.

Moreover, the aim is also to turn the earth into a natural reservoir by focusing on, recharging, and conserving water to ensure supply for every acre and boost farming confidence. Through this initiative, nearly 200 acres of land are expected to come under cultivation, benefitting around 100 farmers. The farmers are eagerly waiting with the hope that irrigation water will finally reach even the tail-end fields of the canal. Lands once appeared barren and unproductive are expected to soon turn green with thriving crops. The responsibility of every citizen to keep water bodies such as lakes and canals clean and well-maintained, and to actively contribute towards protecting these vital resources. The importance and value of water were clearly communicated to the public, encouraging everyone to adopt responsible practices in water usage.

The state uses satellite data and Geographic Information System (GIS) mapping provided by the Andhra Pradesh Space Applications Centre (APSAC) to plan water resource management across districts. The works are heavily driven by public participation (*Jan Bhagidari*) and linked with rural employment guarantee schemes to build durable water-recharging assets. The key areas covered are replicating successful pilot models from the Annamayya and Rayalaseema regions. Improving drainage systems (such as in West Godavari district). Ensuring proper maintenance and water levels in temple tanks (Pushkarinis). Alluri Sitharama Raju (ASR) district and Annamayya district have previously led the state in execution metrics and storage creation under the drive.⁶

To turn the earth into a natural reservoir by focusing on, recharging, and conserving water to ensure supply for every acre and boost farming confidence. The 100-day plan includes desilting minor irrigation tanks, repairing old canals, constructing new check dams, and clearing feeder channels to enhance storage and recharge groundwater. The program, inspired by successful efforts in the Annamayya district, aims to replicate success in groundwater management, where levels increased by 2.20 meters between May 2024 and May 2025. The initiative will use a dedicated app to track the geo-coordinates of works executed, integrating these reports into the Andhra Pradesh Water Resources Information and Management System (APWRIMS). State-wide water requirements are approximately 1,300 TMCs for various sectors (Kharif, Rabi, industrial, and drinking).⁷

Water User Associations (WUA) is considered as an alternative institutional mechanism to increase the efficiency in water use in agriculture. In addition, it is expected to increase the farm income through increasing agricultural productivity and employment in the rural economy. The Water Users' Associations (WUAs) have a significant role to play in the conservation of water resources and they need to do their best to enable the government to provide irrigation facility to every acre in the State, Addressing members of the WUAs through a teleconference, on the eve of the launch of a 100-day action plan on optimum utilisation of water resources.

Chief Minister stressed the need for water security and called for collective efforts to achieve it through proper coordination among the departments of Water Resources, Forest, Panchayat Raj, Agriculture and Animal Husbandry. The WUAs should do water budgeting by estimating availability and demand in their areas and take necessary steps. Rayalaseema, which everyone feared would become a desert, emerged as a horticulture hub, and that the State government's priorities included completion of the Polavaram project and finishing pending works pertaining to the Handri-Neeva Sujala Sravanthi, Galeru-Nagari Sujala Sravanthi and Telugu Ganga.

II. ROLE AND RESPONSIBILITY OF WATER USERS ASSOCIATIONS (WUAS)

The government has empowered 60,000 members of Water User Associations (WUAs) to act as key agents of change in this mission-mode effort.

Their responsibilities include:

- 1) Water Budgeting: Estimating water availability and demand within their jurisdiction to take proactive, tailored conservation steps.
- 2) Infrastructure Maintenance: Directly supervising the desilting of feeder canals and repairing check dams.
- 3) Promoting Micro-Irrigation: Encouraging farmers to adopt drip irrigation to optimize water usage.
- 4) Community Engagement: Leading community-based water conservation and management activities to ensure sustainable use of resources.
- 5) Water Audits: Conducting annual water audits to identify and reduce wastage, aimed at reducing the reliance on, and over-exploitation of, hard rock aquifers.
- 6) Conflict Resolution: Managing the distribution of water and settling local conflicts.

The government has assured the clearance of pending bills for previous works and will allow WUAs to manage canal maintenance and collect water taxes.⁸

A. Hydrological Analysis

The hydrological analysis is useful for understanding the rainfall pattern, water availability, groundwater level, water stress in villages, water storage structures and their storage capacities in a basin. This is used for planning and management of water resources of a sub-basin. The analytical information is available in APWRIMS.

B. Key Activities to be taken up

The Key Activities to be taken up are

- 1) Renovation and Restoration of all MI Tanks, Summer Storage Tanks.
- 2) Restoration of feeder channels of MI Tanks, Strengthening of Tank Bunds
- 3) Connecting all Tanks with the nearby water sources, like canals and upstream tanks
- 4) Planning MI Tanks filling, diversion of flood/rainwater as and when available
- 5) Renovation and Restoration of all Water & Soil Moisture conservation structures,
- 6) Ridge to valley concept implementation
- 7) Green cover improvement
- 8) Construction of new water conservation structures
- 9) Use of technology-driven methods to achieve the set goals through APWRIMS, AWARE etc. and
10. Preparation and implementation of Village Water Security Plan and Village Water Budget.

WUAs have to ensure optimum utilisation of water resources. Ahead of the launch of a 100-day action plan to conserve every drop of rainwater and increase groundwater levels, the Chief Minister calls for collective effort to provide irrigation facility to every acre in the State. The Water Users' Associations (WUAs) have a significant role to play in the conservation of water resources and they need to do their best to enable the government to provide irrigation facility to every acre in the State, observes Andhra Pradesh Chief Minister.⁹

Addressing members of the WUAs through a teleconference, on the eve of the launch of a 100-day action plan on optimum utilisation of water resources, on Sunday, Mr. Naidu stressed the need for water security and called for collective efforts to achieve it through proper coordination among the departments of Water Resources, Forest, Panchayat Raj, Agriculture and Animal Husbandry. The WUAs should do water budgeting by estimating availability and demand in their areas and take necessary steps, Mr. Naidu advised.

C. Lauds 'Jaladhara'

The Chief Minister told the WUAs to get the feeder canals desilted, check-dams repaired, and new structures built wherever required. He wanted that priority be given to micro-irrigation, and lauded the 'Jaladhara' initiative in Annamayya district for its success in recharging the groundwater and filling local tanks. It is Jaladhara Jalaharathi what provides **New Life for Barren Lands** Under the Jaladhara Jalaharathi programme, implemented through convergence, the district undertook the restoration of traditional minor irrigation tanks and their feeder channels not merely to improve surface storage, but to revive natural recharge systems that replenish groundwater aquifers.

The Chief Minister noted that Rayalaseema, which everyone feared would become a desert, emerged as a horticulture hub, and that the State government's priorities included completion of the Polavaram project and finishing pending works pertaining to the Handri-Neeva Sujala Sravanthi, Galeru-Nagari Sujala Sravanthi, and Telugu Ganga.¹⁰ Under the Jaladhara Jalaharathi programme, implemented through convergence, the district undertook the restoration of traditional minor irrigation tanks and their feeder channels not merely to improve surface storage, but to revive natural recharge systems that replenish groundwater aquifers.

III. BENEFITS OF JALADHARA PROGRAM

Highlighting broader benefits are rising groundwater levels would reduce electricity consumption, freeing funds for other developmental programmes. The temple tanks across the state also be included in the initiative, with systematic action plans to ensure water availability in pushkarinis. The impact of Jaladhara-Jalaharathi measures its effectiveness. The programme is not just about infrastructure but about building a culture of water conservation and community involvement across the state of Andhra Pradesh. Jaladhara as a challenge, focusing on repairing canals and tanks to prevent flooding during heavy rains, while ensuring reservoirs are filled during the monsoon. Moreover, a special attention must be given to improving drainage systems.

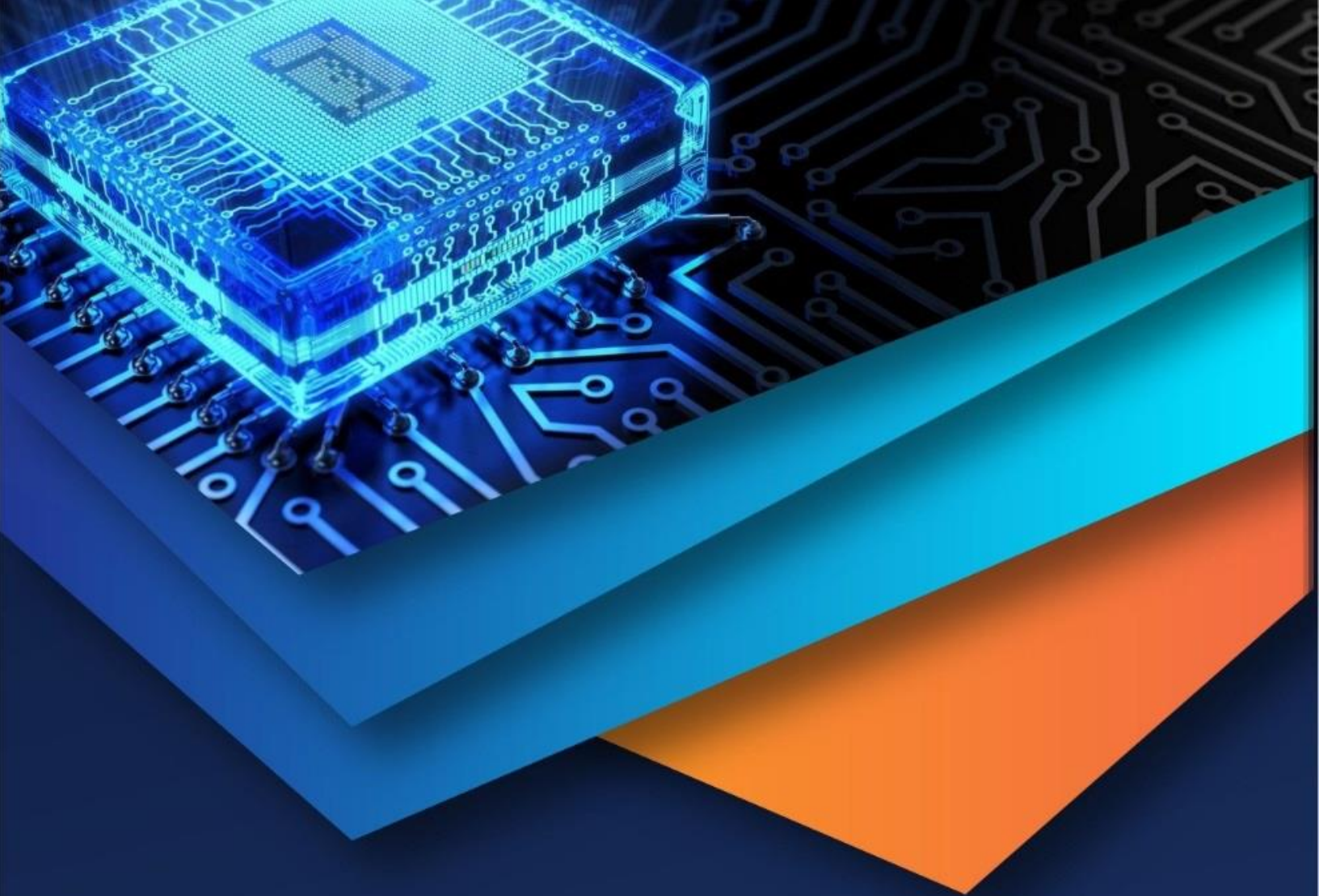
Under the Jaladhara Jalaharathi programme, implemented through convergence, undertakes the restoration of traditional minor irrigation tanks and their feeder channels not merely to improve surface storage, but to revive natural recharge systems that replenish groundwater aquifers. The interventions are expected to substantially improve groundwater availability. Large-scale desilting and restoration is removed of silt, cleared vegetation, and restored feeder channels for allowing rainwater to flow freely into tanks and recharge zones instead of being lost as runoff.

IV. CONCLUSION

The Jaladhara-Jalaharathi scheme is a water conservation and water security initiative launched by the Government of Andhra Pradesh to turn the earth into a natural reservoir by focusing on, recharging, and conserving water to ensure supply for every acre and boost farming confidence, the objective of the program is to create awareness among the public on the conservation, purification and efficient utilization of water resources, along with taking up developmental activities. The Jaladhara-Jalaharathi scheme is a flagship water conservation and management program launched by the Government of Andhra Pradesh. The State government initiated 'Jaladhara-Jalaharathi' and implemented in the drought-hit Annamayya district to combine water conservation with rural employment. Launched as a 100-day programme, the scheme works to conserve rainwater and restore traditional water bodies to strengthen irrigation security. The project will bring irrigation to about 210 acres, improving crop prospects and stabilising farm incomes. Farmers say the initiative not only prevents rainwater wastage but also ensures a reliable water supply for both agricultural and drinking needs. Jaladhara initiative had already shown results, prompting the State government to consider scaling it up across regions. "Jaladhara is now being seen as a replicable model for climate-resilient rural development, reinforcing the belief that sustainable water management can drive both ecological balance and economic resilience in vulnerable regions of the State of Andhra Pradesh.

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