

## **DEMAND DRIVEN APPROACH: A SOLUTION FOR DRINKING WATER SCARCITY IN KERALA**

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### **ABSTRACT**

*“Water is the abject necessity for any kind of life to exist” – Atharva Veda*

The drinking water sector in Kerala has witnessed the emergence of different efforts in the provision of safe and adequate drinking water. But the goal of providing safe and adequate drinking water to all people in all types of localities has not been achieved. The total water supply schemes of KWA in operation as on March 31, 2017 in the State is 1,073. In the recent past, community managed drinking water supply schemes have been implemented in Kerala to fill the gaps in the water supply by the state government and panchayats. While community management demands more involvement of the beneficiaries, the authority takes advantage of it to transfer the responsibility of the service to them and withdraw from the picture. Jalanidhi is a paradigm shift in the area of water resource management projects. This contains various plans and programmes for the effective and efficient usage of available water. The Jalanidhi will be success in this regard for ensuring the efficient and sustainable use of inherent water potential for the present and future generations.

**Keywords:** Drinking water, Water supply, Water resource, Government, Kerala.

The drinking water sector in Kerala has witnessed the emergence of different efforts in the provision of safe and adequate drinking water. But the goal of providing safe and adequate drinking water to all people in all types of localities has not been achieved. The state intervention in the provision of providing drinking water began even before the formation of the state. During the pre- independence period water supply programmes were mainly concentrated on urban areas. After the formation of the state Kerala, the provision of rural drinking water supply programmes increased rapidly.

The major implementing agencies of drinking water supply schemes in the state are the Kerala Water Authority, the Kerala Rural Water Supply and Sanitation Agency and Local Self

Government Institutions. Besides these agencies, the Department of Urban Development and the Department of Town and Country Planning are also implementing water supply schemes. The Kerala Water Authority, an autonomous body under the state government, was launched to plan, implement and manage piped water supply systems in the eighties.

<b>Total Households (HHs)</b>	<b>7,716,370</b>
HHs with tap water from treated sources	1,802,341
HHs with tap water from untreated sources	461,372
HHs with covered well water	1,129,397
HHs with uncovered well water	3,657,463
HHs with hand pumps	38,402
HHs with tube or bore wells	285,394
HHs with spring water	108,527
HHs with river or canal water	15,215
HHs with pond or lake water	55,793
HHs with other sources	162,466

Source: Census 2011

The total water supply schemes of KWA in operation as on March 31, 2017 in the State is 1,073. Out of 1,073 schemes, 989 are rural and 84 are urban water supply schemes. There is a decrease in number of water supply schemes in operation in the State, as 1,078 schemes were under operation in 2016. Thrissur district has highest number of water supply schemes (119) followed by Ernakulam district (98). The least covered district is Wayanad (27). Number of Water Supply Schemes of Kerala Water Authority transferred to Local bodies as on March 31, 2017 is 477.

In the recent past, community managed drinking water supply schemes have been implemented in Kerala to fill the gaps in the water supply by the state government and panchayats. These water supply schemes are being implemented with the financial assistance from external funding agencies like the World Bank, JBIC etc... While community management demands more involvement of the beneficiaries, the authority takes advantage of it to transfer the responsibility of the service to them and withdraw from the picture. Jalanidhi is a paradigm shift in the area of water resource management projects. Jalanidhi is a community managed rural drinking water supply scheme implemented with the financial assistance of World Bank and its objectives of demonstrating the viability of the cost sharing model and in building up the state's capacity in environmental sanitation were commendable. Though these ideals point to far reaching implications in the state, the planning and implementation of jalanidhi lacked this long term vision.

Jalanidhi is following a demand driven approach. The functioning of jalanidhi is a public- private partnership that blends the government and panchayats with the beneficiaries. The entire beneficiaries divided into several groups and actively participated in the planning, implementing and maintain of various water supply schemes in jalanidhi. As a rural drinking water supply programme, jalanidhi not only concentrated on the quantity of water but also the quality of water provided. Environmental sanitation is also implemented as a long term goal with water supply programmes.

Most of the beneficiaries opined that the project is excellent and serving beyond their expectations. It is observed that the vast majority of beneficiaries who had real problem with regard to drinking water stated that; jalanidhi could solve the drinking water scarcity in Kerala. Regarding time, quality and quantity of water available, 60% are satisfied with quality and 95% are satisfied with quantity of water available through Jalanidhi. As a beneficiary, people have to pay 15 % of capital cost and 100% of operational and maintenance cost. Majority of respondents replied that they get merit from Jalanidhi project equal to the financial expenditure that they have to pay for getting the service.

The concept of ownership transfer to the beneficiaries has introduced an element of ambiguity about the functioning of authorities. Their complete withdrawal from the picture results in the project being stopped after launching. Hence retaining the ownership in the authority is suggested. This would give the authorities the right to check, evaluate and correct the functioning of the schemes, leading to an overall improvement of jalanidhi.

Retaining the ownership of various schemes implemented in jalanidhi in the authority will reduce the confusion among the beneficiaries . Jalanidhi project was implemented to provide

adequate drinking water supply in the rural area where a large number of populations is poor and socially disadvantaged. But some of the targeted population was not able to pay the 15% of its capital cost and maintenance cost. So authority should take necessary measures to include the poorest people, who are unable to pay the capital cost and maintenance cost. Panchayat can also increase the number of beneficiaries by demand estimation. It reduces the capital cost and maintenance cost per head. Panchayat also will have to check and evaluate the quantity and quality of water providing under this scheme for ensuring the effectiveness of the project. Effective utilization of water resource will reduce the scarcity. So a project like jalanidhi that effectively utilize the inherent potential of water resource will support the sustainable development of environment.

The water management science has to be diagnosed by internationally renowned water management scientists. Modern science, especially Satellite Technology, Astro Physics, Computerized macro dynamic operational magnetic model etc... can be used for water resource management. Application of science and technology in developed economies are operational models in this context. For initiating this measures, Jalanidhi act as a guide or director. This contains various plans and programmes for the effective and efficient usage of available water. The Jalanidhi will be success in this regard for ensuring the efficient and sustainable use of inherent water potential for the present and future generations.

## **BIBLIOGRAPHY**

Government of Kerala (1998), 'Ninth Five Year Plan 1997-2002', Report of the Steering Committee on Water Resources, State Planning Board, June, Thiruvananthapuram, p.2.

GOK (various years), Economic Review, SPB, Pattom, Thiruvananthapuram.

Iyer, Ramaswamy, R. (2001), 'Water: Charting a Course for the Future', Economic and Political Weekly, March 31, Bombay, p.1116.

*Shishodia, A. & Singh, K.(2007). Environmental Economics: Theory and Practice. New Delhi, Sage Publications.*

State Planning Board (2009), 'An Evaluation Study on Jalanidhi Projects in Kerala, October, Thiruvananthapuram.

Vijayakumary M. S, (2002), "An economic evaluation of rural drinking water supply projects in Kerala-A comparative study".

Varkey, J (2012), Community Management of Water Resources in Kerala: A study of user participation in drinking water schemes.

<https://fwdbusiness.com>

<https://www.thehindu.com>

<http://www.worldbank.org/en/news/feature/2013/08/12/india-getting-water-on-tap-in-rural-kerala>

<https://yourstory.com/2017/05/kerala-water-crisis/>

[http://spb.kerala.gov.in/EconomicReview2016/web/chapter04\\_12.php](http://spb.kerala.gov.in/EconomicReview2016/web/chapter04_12.php)