

# Functionality, Adequacy and Regularity in Jal Jeevan Mission: A Comparative Assessment of Musiri region, Tiruchirappalli with the National cum State level parameters

S. Manikandan<sup>1</sup>, Dr. DAV Clement<sup>2</sup>

<sup>1</sup>Part time Research Scholar, <sup>2</sup>Associate Professor

<sup>1,2</sup>PG and Research Department of Economics, Thanthai Periyar Government Arts and Science College (Autonomous) Tituchirappalli-620023, India.

## Abstract:

There was a time in rural India when the access to safe drinking water was a big challenge. Many studies claim that the Jal Jeevan Mission launched in the year 2019 played a significant role to change this scenario. This study focuses on analysing the credibility of the mission in Musiri region of Tiruchirappalli in Tamilnadu. The study considers the national level and state level data from Functional Household Tap Connection (FHTC) reports of Jal Jeevan Mission. The study attempts to analyse the situation that prevails in Musiri region using the data from FHTC reports as benchmarks. The study analyses the performance of the FHTC based on three parameters: Functionality, adequacy and regularity. The study concludes that the implementation in Musiri region is successful as the parameter values are very close or higher than the benchmarks.

**Keywords:** Functionality, Adequacy, Regularity, Community engagement.

## 1. INTRODUCTION:

The burden of disease analysis of WHO in 2019 suggested that unsafe drinking water was responsible for more deaths in India. In 2018, 36% of the Indian population did not have access to drinking-water source on premises. In 2019, the government of India launched the Jal Jeevan Mission (JJM). It is a nationwide programme designed to provide all households in rural India with safe and adequate drinking-water through individual household tap connections by 2024. JJM has demonstrated community engagement compared to the previous National Rural Drinking Water Programme (NRDWP). The main causes for success are:

- The NRDWP was a supply driven approach but JJM is a demand driven approach.
- The higher coverage rate is a key cause of success of JJM.
- Functional Household Tap Connections (FHTC) coverage through proactive monitoring played a key role in implementing JJM.

The Functional Household Tap Connection (FHTC) under the Jal Jeevan Mission (JJM) provides a regular, long-term supply of potable water (minimum 55 liters per capita per day) meeting BIS:10500 quality standards to every rural household. This initiative aims to ensure "Har Ghar Jal" (tap water in every home). A tap is considered functional if it provides an adequate quantity. As of Feb 2025, over 15.72 crore

(79.74%) rural households have been provided with tap water connections, increasing from 17% in 2019. Upon achieving 100% functionality, a village is certified as "Har Ghar Jal" by the Gram Panchayat. Many studies have proved that JJM could prevent deaths due to diarrhoea. The mission is estimated to save roughly 60 million human hours. Thus time poverty has been removed successfully by JJM. The mission has removed the constraints on economic productivity. By integrating technology, transparency, and community ownership, JJM seeks to ensure the long-term sustainability of rural water supply systems. At the time of its launch, only 3.23 crore (16.8%) rural households had access to tap water. However, as of August 5, 2024, an additional 11.81 crore rural households have been provided with tap water connections, bringing the total to over 15.04 crore (77.87%) out of 19.32 crore rural households across the country.

## 2. REVIEW OF LITERATURE

Shubham Sharma, Deepak Kumar Prajapat & Saurabh Singh (2023) [1] analysed that rural tap water coverage has significantly increased from 17% at the inception of the Mission to over 45% (8.75 crore households).

Mr. Ashwin Bhat, Dr. Shyamali Banerjee (2024) [2] compared NRDWP AND JJM. They found out that the implementation model of Jal Jeevan Mission has been effective in providing access to clean and potable water to rural households in Maharashtra.

Dr. Ranjeet Kumar (2024) [3] evaluated the effects of the Jal Jeevan Mission in rural Jharkhand. It concludes that JJM has improved the access to safe drinking water in the villages of the state.

Narayana Bilava, et al., (2024) [4] assessed the effectiveness of JJM in Karnataka's Gadag and Uttara Kannada districts. The study concludes that community participation is the key factor for the successful implementation.

J. Balamurugan, et al., (2024) [5] concluded that the implementation of source sustainability measures, including recharge and reuse through greywater management is essential.

## 3. ANALYSIS:

### Objectives

- To analyse the impact of Jal Jeevan Mission with special reference to FHTC in Musiri Region.
- To evaluate the progress in implementation.
- To identify the success level of implementation.

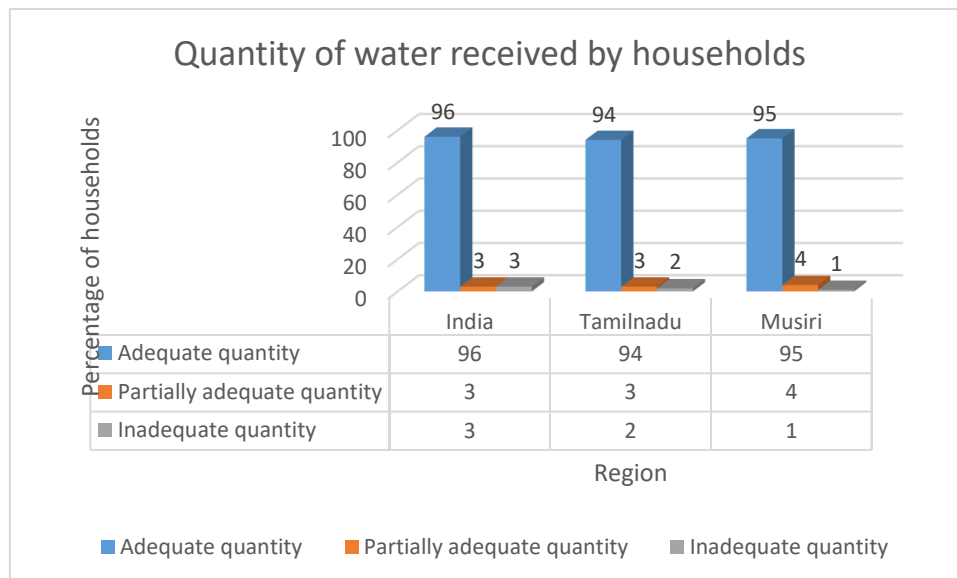
### Material and Methods

- Data Source: Secondary data from FHTC reports and primary data from Musiri region.
- Study Area: Musiri region, Tiruchirappalli District, Tamil Nadu.
- Type of Study: Descriptive and analytical.

Musiri Taluka in Tamil Nadu's Tiruchirappalli district contains 59 villages, with a total rural population of over 182,267. Major villages include Amoor, Gunaseelam, Thinnanur, Puthanampatti, and Valavandhi. In this region, Jal Jeevan Mission has achieved notable advancements, with many rural households gaining household tap connections. It has become a vital program which focused on fulfilling the drinking water needs of rural regions in Musiri region. It has also contributed significantly to the economic growth and development in this region. Consequently the program has improved the health and efficiency of rural homes, by providing access to cost effective and good quality drinking water.

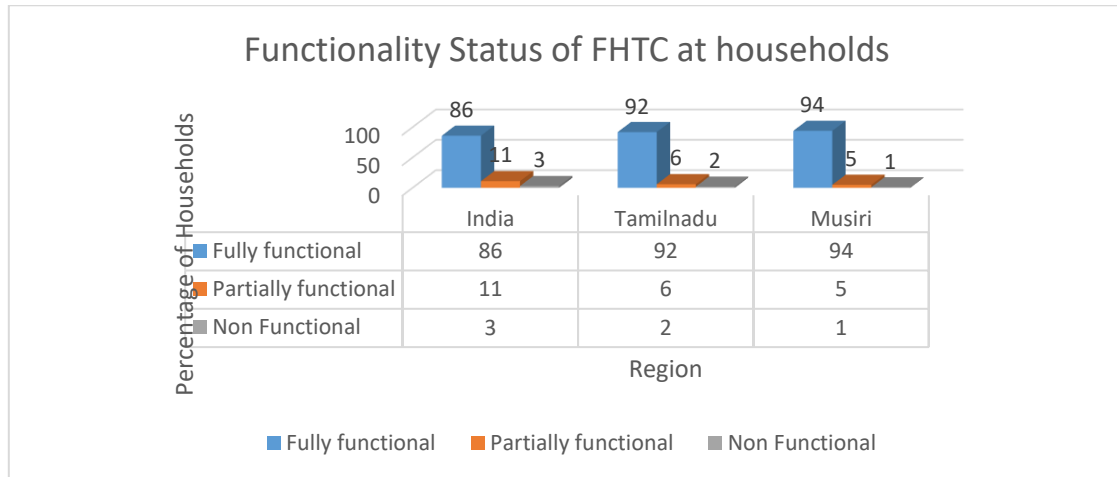
The study considers the data and parameters from the National reports of functionality assessment of Household tap connection. The data on various parameters collected for India as a whole and Tamilnadu are taken from FHTC reports. The primary data collected from selected households of Musiri region are compared with the National level and State level data. The study attempts to compare the infrastructure development due to FHTC. The National level, State level and Regional level comparisons are done based on the functionality, adequacy and regularity status of FHTC.

Adequacy of FHTC is tested based on the availability of infrastructure. The infrastructure here means the availability of tap connection which provides adequate quantity of water. The system is fully adequate when the quantity of water supplied is greater than or equal to 55 LPCD (Litre per capita per day), Partially adequate when it is greater than 40 LPCD and less than 55 LPCD and inadequate when it is less than 40 LPCD.



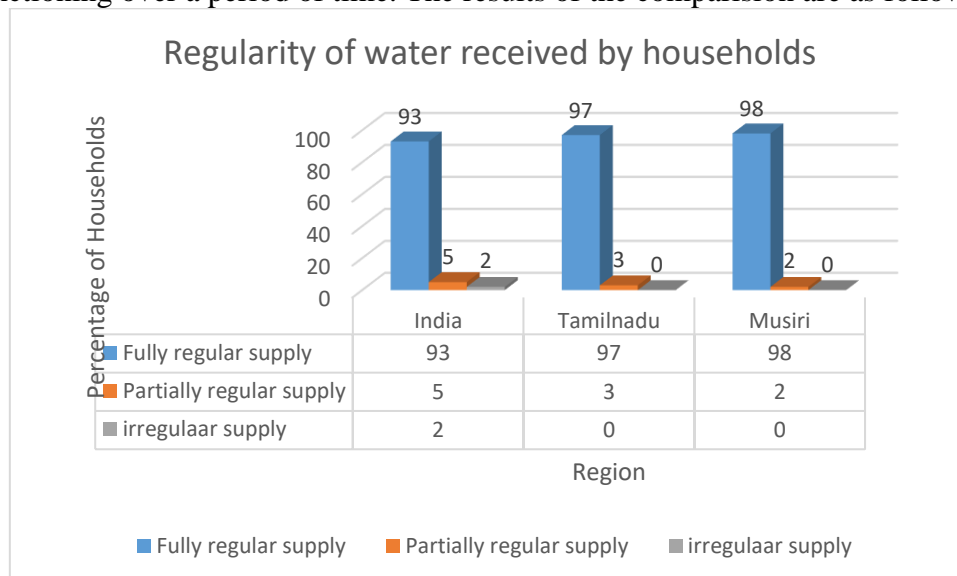
The adequacy in State level is better than that of the Nation. Also the adequacy is better in the Musiri region as compared to the overall state.

Functionality of FHTC is tested based on whether water is received at least once in last 7 days. The comparative study in the National, state and Region levels resulted in the following data.



The functionality in State level is better than that of the Nation. Also the functionality is better in the Musiri region as compared to the overall state.

While Functionality is tested based on a week’s happening, the regularity is tested based on continuous functioning over a period of time. The results of the comparison are as follows.



The regularity in State level is better than that of the Nation. Also the regularity is better in the Musiri region as compared to the overall state.

**4. FINDINGS:**

The study analysed the credibility of FHTC of JJM based on three parameters: Functionality, Adequacy and Regularity in Musiri region, Tiruchirappalli. For all the three parameters the performance of the region is compared with the performance in the State of Tamilnadu and the performance all over India. It is found that the functionality, adequacy and regularity in State level is better than that of the Nation. Also the performance is better in the Musiri region as compared to the overall state.

The Jal Jeevan Mission (JJM) has achieved significant success in the Trichy district, including the Musiri region, with a considerable percentage of households receiving piped drinking water connections. Key initiatives include the water schemes for Musiri and Manachanallur. Thus JJM has ensured sustained, potable water which has reduced women's labor due to which the quality of life has improved.

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