

A Critical Analysis of the Bihar Government's Jal Jeevan Hariyali Initiative

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Abstract

Finding sustainable ways to manage natural resources, particularly in the world's fragile drylands, has become crucial to halting and reversing the degradation of essential resources such as soil and water. This challenge is especially significant in a country like India, where 70 percent of the population still resides in rural areas, and 80 percent of the annual rainfall occurs during the monsoon season. To address this, policymakers worldwide have introduced various community-based development strategies, emphasizing local participation in decision-making to enhance sustainability. India has a long-standing tradition of village self-governance, and modern policies aim to revive and strengthen this practice. One such approach is integrated watershed management, which treats watershed areas as a single unit, encouraging villagers to actively engage in planning and implementation. This method has empowered numerous villages to adopt water harvesting and soil conservation techniques, leading to improved agricultural productivity and enhanced social well-being.

This article critically examines "Natural Resource Management for Sustainable Development through Community Participation in India." It is a review-based study, with information gathered from secondary sources such as online databases, journals, textbooks, blogs, magazines, and newspapers.

Keywords: Conservation, Implementation, Resource Management, Policymakers, Sustainability

Introduction

Earth provides enough to satisfy every man's needs, but not every man's greed Mahatma Gandhi

Introduction

Natural resources play a crucial role in sustaining life and economic development. However, rapid population growth, industrialization, and climate change have led to their overexploitation, causing severe environmental degradation. In India, where nearly 70% of the population resides in rural areas and 80% of annual rainfall occurs during the monsoon season, the management of natural resources—particularly water conservation and sustainable land use—is of paramount importance.

Recognizing the urgency of resource conservation, policymakers have initiated several community-driven programs aimed at sustainable natural resource management. Among these, the Jal Jeevan Hariyali Abhiyan, launched by the Government of Bihar, is a comprehensive initiative focused on water conservation, afforestation, groundwater recharge, and sustainable agriculture. The program promotes community engagement through self-help groups (SHGs), watershed committees, and farmers' groups, ensuring a participatory approach to resource management and environmental protection.

The Jal Jeevan Hariyali Mission (JJHM), operating under the Rural Development Department of Bihar, emphasizes a multi-stakeholder approach to combat water scarcity and ecological degradation. Key

interventions include rainwater harvesting, check dam construction, afforestation drives, energy conservation, and sustainable irrigation techniques such as drip irrigation and organic farming. The program also integrates educational initiatives to raise awareness among students and communities about the importance of water conservation and sustainable living.

Several on-ground efforts highlight the success of community participation in achieving the mission's objectives. For instance, in Katoria block, Banka district, the Gram Sathi organization has implemented watershed structures over 750 sq. km, leading to improved groundwater recharge and year-round farming. Similarly, the mass plantation campaign in Darbhanga and Green Panchayat initiatives in Samastipur demonstrate how local governance and public cooperation contribute to environmental sustainability.

This research paper aims to analyze the effectiveness of the Jal Jeevan Hariyali Abhiyan in managing natural resources through community engagement. By reviewing secondary data sources such as government reports, journals, and environmental studies, the paper assesses the impact of conservation measures and explores the role of local communities in ensuring long-term sustainability.

The findings of this study will help policymakers, environmentalists, and rural communities strengthen resource conservation strategies, ensuring a balanced and sustainable ecological future for Bihar and beyond.

Aim of the Study

The study aims to raise awareness about the Jal Jeevan Hariyali program, which is being implemented in Bihar through a collaborative effort between the government and the community for effective water resource management.

Methodology

The study focuses on the state of Bihar, India. To understand the community's role in the Jal Jeevan Hariyali Abhiyan, secondary data sources such as e-books, journals, e-magazines, and government reports have been utilized. The study is structured into the following sections: Introduction, Aim of the Study, Methodology, Results, and Conclusion.

Result-

JAL-JEEVAN-HARIYALI MISSION (JJHM), BIHAR

“Water conservation depends on tree plantation”



-Nitish Kumar

https://www.google.com/search?sca_esv=a9a17715c624a2d7&sxsrf

Jal Jeevan Hariyali Mission (JJHM)

The **Jal Jeevan Hariyali Mission (JJHM)** is an autonomous body registered under the *Societies Registration Act, 1860*, operating under *the Rural Development Department, Government of Bihar*. The mission functions under the overall administrative control of the state government and is a multi-stakeholder initiative aimed at *climate sustainability, conservation, and rejuvenation of water bodies*. Its objectives include:

- Preventing water pollution
- Maintaining groundwater levels
- Ensuring adequate water availability
- Promoting climate-resilient agriculture
- Enhancing energy conservation
- Spreading climate awareness among the masses

The **Rural Development Department** has been designated as the **nodal department** to coordinate the implementation of JJHM in collaboration with various other departments.

Key Initiatives Under the Jal Jeevan Hariyali Mission (JJHM)

The mission is being implemented in a **time-bound and mission-driven** manner through **11 targeted interventions**, including:

- Identification and rejuvenation of all public conventional water storage structures
- Construction of **check dams and other water harvesting structures** in small rivers, drains, and hilly areas
- Creation of new water sources and taking/delivering of water from the surplus river area to water deficit areas,
- **Construction of rainwater harvesting structures** in buildings to enhance water conservation.
- **Establishment of nurseries** and dense tree plantations to promote ecological balance.
- **Encouragement of alternative cropping patterns** to optimize water usage.
- **Promotion of drip irrigation** to enhance water efficiency in agriculture.
- **Adoption of organic farming** and other sustainable agricultural techniques.
- **Encouragement of solar energy use** and energy conservation initiatives.

Mission Vision and Commitment

The **Jal Jeevan Hariyali Mission** presents a significant opportunity for Indian citizens to **recommit to a sustainable future**, as symbolized by its motto: "*Water, Life, and Greenery—Only Then Will There Be Prosperity.*"

To ensure targeted, time-bound outcomes, the mission's components have been carefully designed to maintain ecological balance while promoting sustainable development.

- The **Bihar Government** has issued an order stating that the **Jal Jeevan Hariyali Program** will be implemented with the active participation of **community members, school livelihood workers, and MNREGA workers**, ensuring local cooperation in its execution.
- Recognizing that **water conservation is closely linked to tree plantation**, a large-scale **tree-planting campaign** was launched in **Darbhanga on July 21, 2019**. As part of this initiative,

instructions were given to plant **100 saplings** in **government schools, colleges, clubs, and parks**, as well as within their premises.

- Additionally, **gardeners and local plant traders** were directed to grow and preserve saplings, particularly those species that contribute to water conservation.
- To further support environmental sustainability, **Bihar has adopted an innovative approach** to road expansion—rather than cutting down trees, efforts are being made to **relocate them** with the help of **local communities and a Hyderabad-based company**.
- Van Mahotsav was organized in schools and colleges from 1 August to 15 August 2019, in which publicity was given to the teachers and instructions were given to make children more aware about forest conservation, plantation and water conservation.
- The **people of Bihar** were encouraged to take a pledge to protect trees by tying a **Raksha Sutra** around them on the occasion of **Rakshabandhan** as a symbolic gesture of conservation.
- The **Harpur Panchayat** in **Samastipur district** earned the **Green Panchayat** status at the national level by planting **1.117 lakh saplings** under the **MNREGA** scheme.
- Starting **October 2, 2019**, under the **Jal Jeevan Hariyali Yojana**, a **water conservation plan** was developed for **10 districts at a time**, in collaboration with the **Building Construction Department** and **MNREGA**, covering all **38 districts of Bihar**. Additionally, water collection systems have been installed in buildings constructed after **2014** by the **Building Construction Department** to promote sustainable water management.
- To further support afforestation, **tree plantation drives** were conducted across districts through **water journeys (Raili Yatras)**. More than **500 trees** have been planted, and organizations and families actively participated, with awards given to encourage involvement.
- Under the **One Child, One Sapling** initiative, large-scale plantations were encouraged within school premises, where each **sapling was named after a child**, making them personally responsible for its care.
- To instill awareness about water conservation among students, **Jal Jeevan Hariyali Day** is observed in all schools across Bihar on the **first Tuesday of every month**. On this day, children are educated about the importance of **water conservation and sustainable practices**.
- The **Government of Bihar** has introduced a provision to raise awareness among **school children** about **water and other natural resources**. As part of this initiative, students are taken on educational visits to **reservoirs, ponds, and rivers** within their districts.
- Additionally, **awareness programs on water structures and management** are conducted in schools by **teachers and local representatives** to educate students about sustainable water conservation practices.
- Under the **Jal Jeevan Hariyali Programme**, a **tree plantation drive** was organized by **CRPF 215 Battalion officers and personnel** at the **Police Lines in Jamui**, promoting afforestation and environmental conservation.
- To encourage **farmers** in water conservation efforts, the **government is providing a subsidy of ₹75,000**. This financial support enables farmers to **construct ponds** around their fields, ensuring a **sustainable irrigation system** while also creating **employment**
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- On **January 19, 2020**, a **human chain** was formed across Bihar to promote the **Jal Jeevan Hariyali Program**. Participants from **schools, colleges, and various institutions** came together to spread the message of **environmental protection** through this symbolic initiative.
- In **Munger district**, with the support of **Gram Panchayats**, **nine nurseries** have been established to cultivate **saplings of 70 different species**. These saplings are distributed for plantation during **various Panchayat-level programs**. Notably, these nurseries operate using **solar-powered electricity**, ensuring sustainability.
- Under the **Harit Jeevika, Harit Bihar** initiative, the **Jeevika Group of Bihar** provides saplings to **Panchayats** and also assumes responsibility for their maintenance, ensuring long-term environmental impact.
- Additionally, the **Jeevika Group** plays a key role in the **maintenance of ponds** developed under the **Jal Jeevan Hariyali Program**, further contributing to water conservation and ecosystem sustainability.
- To enhance community participation in the Jal Jeevan Hariyali Abhiyan, various awareness

programs are being organized under the National Service Scheme (NSS) in schools and colleges. These initiatives include tree plantation drives, painting and essay competitions, with a set target of planting 100 saplings in each institution.

- Efforts are also being made to involve the general public in the Jal Jeevan Hariyali Program through a range of awareness campaigns. As part of this initiative, people are educated about different types of water taps and the importance of immediate repair in case of leakage. Special emphasis is placed on fixing even minor leaks to prevent water wastage. Additionally, it is encouraged that excess water discharged from RO systems be utilized efficiently for other purposes.

Gram Sathi : Watershed Development Program

To address long-term challenges such as shrinking groundwater resources and increasing soil salinity, Gram Sathi is actively working on groundwater recharge and rainwater harvesting through watershed structures over a 750 sq. km catchment area in Katoria block, Banka district, Bihar.

- **In 2015-16, with community support, a check dam was constructed at Targahat Joria River,** significantly improving water availability for irrigation in nearby villages. As a result, farmers who previously relied solely on monsoon-dependent agriculture are now able to cultivate crops year-round. This shift has facilitated multi-cropping, providing sustainable livelihoods for residents of the watershed area.

Community Engagement Programs:

Various community groups, including the Watershed Committee, Women’s Self-Help Groups (SHGs), and Farmers' Groups, are actively involved in different aspects of project development and implementation. These groups work at various levels and engage regularly with field staff to ensure progress.

- These **committees** play a crucial role in the **planning and monitoring** of activities, as well as in the **recruitment of laborers** for project execution.
- As the project advances and its **impact becomes more visible**, an increasing number of people have expressed interest and joined various **community engagement programs**, which include:

(List of programs to follow if available)



Activities/Programs	Benefitted people/villages	Duration
Base Line Survey	10 Villages	5 Months
Village Meeting	10 Villages	Every Month
Kitchen Garden	3 Villages	3 Months

Sapling preparation	Preparation of 2 Lac Saplings	3 Months
Plants distribution	75 Farmers (50 Hectares Land)	4 Months
Formation of SHGs	40 SHGs	1 Month
Regular meetings of the SHGs	10 Villages	Every Month

Organization of Workshop

A **workshop on Natural Resource Management** was organized in **Chakmadhia village, Katoria block, Banka district, Bihar**, with a **significant number of participants, including farmers**. The workshop emphasized the **urgent need to improve groundwater levels and promote sustainable water conservation practices**.

Mr. **Devanand Kumar, Managing Trustee of Gram Sathi**, highlighted the **adverse impact of human activities on natural resources**, which has led to **water imbalances, scarcity of safe drinking water, and rising water pollution**. He urged participants to actively engage in **water conservation efforts** and adopt measures to **prevent water wastage** in daily life.

Conclusion

The **Jal Jeevan Hariyali Abhiyan** and other **natural resource management initiatives** in Bihar highlight the **significant role of community participation** in addressing **water conservation, groundwater recharge, and environmental sustainability**. Through various **awareness programs, workshops, and policy interventions**, efforts have been made to **restore ecological balance** and ensure **sustainable livelihoods** for rural communities.

The success of programs such as **watershed development, rainwater harvesting, afforestation, and sustainable agricultural practices** demonstrates that **collective action** can lead to **long-term solutions** for water scarcity and environmental degradation. By involving **local communities, self-help groups, and farmers**, these initiatives have not only improved **water availability and agricultural productivity** but also strengthened **environmental consciousness** among citizens.

Moving forward, it is essential to **expand and sustain these efforts**, integrating **scientific approaches with traditional knowledge** to achieve **holistic natural resource management**. The continued **collaboration between the government, communities, and environmental organizations** will be key to ensuring a **greener, healthier, and more water-secure future** for Bihar and beyond.

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