



Transfiguration of Water and Sanitation Practices: Enhancing Disease Prevention and Community Well-Being Among PVTGs

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Abstract

The study will investigate the water and sanitation practices among PVTGs. The study employs qualitative research techniques by scrutinizing secondary data from government reports, international organizations, and academic literature will be utilized to provide a broader context and comparative analysis for transformative breakthroughs. This study eliminates the geographical disparity among PVTGs' accessibility to better water and sanitation facilities. Through an assortment of initiatives and government efforts, the country has made great progress towards these goals since 2015. However, in implementation aspects, it remains a challenging endeavor among PVTGs of Annamalai Tiger Reserve (ATR). The research study contributes significantly to the existing body of knowledge on promoting social protection and recognition of PVTGs' life span. By highlighting the interconnectedness of sanitation with various aspects of human development, this study aims to inform evidence-based policymaking and promote effective interventions to enable all households to access and utilize safe & adequate drinking water within premises to the extent possible accomplishing Sustainable Development Goal 6 (Clean Water & Sanitation), of United Nations. The proposed framework for inclusive sanitation strategies will provide valuable guidance for policymakers to revamp and extend the schemes to PVTGs with the support of respective authorities, NGOs, and international organizations working towards achieving universal access and achieving the objective of Viksit Bharath 2047. Access to better water and sanitation is an essential and fundamental human right, and this could be accomplished through comprehending all the factors affecting its consequences

Keywords: PVTGS; Sanitation; SDG-6; Social Protection

1. Introduction

Water forms one of the most basic components of our living environment next to air. Water Supply and Sanitation Collaborative Council states sanitation is an intervention to reduce people's exposure to diseases. The benefits of water and sanitation practices accomplish the objectives of the Jal Jeevan Mission, sustainable development goal 6, and Viksit Bharat, 2047. The PVTGS are affected by the burden of disease that are considered to be averted cases of diarrhoeal disease this impacts reduced malnutrition, enteropathy, and malnutrition-related conditions among them. The reduction in dehydration illness could be due to a lack of access to water and fewer disaster-related health impacts among the PVTGs. Open defecation is the major existing problem among the PVTGs that affects the individual health leading to an unhealthy lifestyle. It is identified that improper

storage of water, infrequent water purification, the common practices of open defecation, and poor hygienic practices affect the lifespan of PVTGs. This would result in the extinction of PVTGs and the nation's resources. So, there a need to pave the way for more effective, inclusive, and sustainable approaches to improve Indigenous public health and community well-being. Sustainable development goals improve individual quality of life and sustainable societies, resulting in attaining the vision of Viksit Bharath 2047. The objectives of the present are:

1. To study the need for water and sanitation among PVTGs in ATR.
2. To ensure the fulfillment of inhabitants' rights aligning with SDG -6 among PVTGs.
3. To assess the influence of water on sanitation



among PVTGs.

4. To develop a framework for inclusive water and sanitation strategies among PVTGs [1].

2. Review of Literature

Kumar et al., (2024) The study calculated the regional variation in ST people's access to better water and sanitation services and its correlates. For 707 districts included in the fifth round of the National Family Health Survey, 201921, geospatial methods such as Moran's I, univariate and bivariate local indicators of spatial association, and spatial regression models were used. Arc Map and GeoDA were utilized for spatial analysis, whereas Stata was utilized for descriptive analysis. In India, there is geographical diversity among districts, and over half of tribal families have access to better water and sanitation amenities. It was concluded from the study that the efforts to improve water and sanitation facilities among ST families may help achieve SDG-6 and guarantee the well-being of the ST community in India by increasing access to better forms of water and sanitation Gopinath (2015) India is a country of villages, with 71% of its people residing in rural areas. The poor quality of life that exists in rural areas enhances the vulnerability of India's rural population to many communicable diseases. Water to drink and sanitation are necessities for life. The 73rd Constitutional Amendment Act's 11th Schedule includes drinking water. Consequently, it is presently the responsibility of Panchayati Raj Institutions (PRIs) to supply their local community with basic amenities like clean drinking water and sanitary facilities [2].

2.1. Research Gap Identified

Although deforestation, tourism, and the growth of protected areas have led to rapid environmental changes and a rise in human-wildlife conflicts in the ATR, these issues are still little understood about PVTGs' everyday hygiene and health habits. It has not been sufficiently examined or documented how often waterborne illnesses, malnourishment, and other hygiene-related health problems are among these groups concerning their unique living circumstances and cultural customs. Furthermore, while a large body of research has examined the wider public health issues that rural and Indigenous

populations in India face, little of it focuses on the specific ways that PVTGs in environmentally sensitive and remote areas like the ATR manage sanitation and hygiene daily [3].

3. Methodology

The study focuses on focusing in qualitative research by scrutinizing published research articles in peer-reviewed journals, and UN reports, that were relevant to the current topic. The chosen method of using the reports for assessing water, sanitation, and PVTGs is highly suitable for several reasons, like

- The reports provided empirical evidence which are reliable for the study result.
- Secondary data give a systematic and complete evaluation framework including social, economic, and environmental factors. This multifaceted strategy guarantees a comprehensive comprehension of the advancements.
- The secondary sources provided a multifaceted and granular analysis of progress for the analysis.

4. Findings

There is a total of 288 households.

Table 1 Number of Households in ATR Region

| S.No | Name of the Settlement | Community | No of Households |
|------|------------------------|---------------|------------------|
| 1 | Kallarkudi | Kadar | 22 |
| | Future Intervention | | |
| 2 | Navamalai | Muthuvar | 42 |
| 3 | Kavarkal | Kadar | 20 |
| 4 | Chincona | Kadar | 25 |
| 5 | Maavadappu | Pulaiyar | 42 |
| 6 | Kuzhipatti | Pulaiyar | 25 |
| 7 | Mozhakuthara | Pulaiyar | 11 |
| 8 | Karumutti | Muthuvar | 52 |
| 9 | Varagaliyar | Malasar | 15 |
| 10 | Nagaruthu | Malai Malasar | 46 |
| | Total | | 288 |

- They are educationally backward and are unaware of the causes and implications of the poor usage of quality drinking water, health, and hygiene due to the lack of individual household pipes, no personal toilet, and frequent washing of hands. Table 1 shows Number of Households in ATR Region



- The statistics on water-borne diseases insist on the need to activate Public Health programs for well-known reasons.
- The PVTGS are affected by the burden of disease, which is considered to be averted cases of diarrhoeal disease, reduced malnutrition, enteropathy, and malnutrition-related conditions.
- The reduction in dehydration illness could be due to a lack of access to water and fewer disaster-related health impacts among the PVTGs.
- Primary Health Care has to take up the initiative in extending its mission with a focus on developing as an integral part of socio-economic development and with full participation of the individual, family, and tribal community.

5. Discussion

The study emphasizes the significance of creating inclusive approaches that are specific to the requirements of PVTGs to lower the prevalence of diseases and enhance the general health outcomes of PVTGs by concentrating on the connection between disease prevention and community well-being. By evaluating the existing condition of sanitation and identifying shortcomings, the research will help achieve Sustainable Development Goal 6. This will make it easier to monitor development and establish reasonable goals for advancement. The results will help achieve the objective of providing clean water and sanitation to all people by assisting in the creation of sustainable sanitation solutions that are adapted to the demands of PVTGs. The research contributes to the larger goal of Viksit Bharath 2047, which is inclusive and holistic development, by tackling sanitation and hygiene challenges in tribal communities to achieve long-term social goals, future development initiatives will be guided by the proposed approaches and frameworks [4].

6. Recommendations

Clean water provision: Since the ATR lacks access to clean water, the government, with assistance from UNICEF and other humanitarian groups, must construct hand pumps and tube wells there to supply clean water for drinking and other uses.

- **Building of latrines:** To enhance sanitation among PVTGs, the government is highly responsible for building latrines in ATR. To

educate PVTGs on the value of using latrines, awareness programs should be launched in cooperation with non-governmental organizations and educational institutions.

- **Solid waste management:** To lessen environmental degradation and stop the spread of disease, the relevant authorities should necessary initiatives to implement waste management systems in ATR regions.
- **Capacity building:** Regarding water and sanitation practices, the government must work with the community representatives of PVTG. They may utilize this to raise awareness among the people in their community.
- **The government's initiatives:** It has greatly enhanced India's indigenous populations' access to clean water and sanitary facilities. However, steps must be taken to guarantee the Jal Jeevan Scheme, WASH, and Viksit Bharat 2047 will be implemented and accomplished [5].

Conclusion

This research serves as an alarming indication that challenges related to water and sanitation affect people everywhere, not only in developing countries. Many displaced and marginalized populations around the world have different obstacles when it comes to accessing water and sanitation infrastructure. The report also highlights factors affecting access to water and sanitation, highlighting the complex relationship between individual circumstances and more basic systemic issues. These studies emphasize the importance of inclusive, culturally sensitive approaches to improve water and sanitation practices contributing to the achievement for the enhanced quality of life of the PVTGs. To empower PVTG communities to take ownership of their living conditions and futures, it highlights the need for tailored and all-encompassing approaches to dealing with community encounters. This paper highlights the significance and providing PVTGs with the necessities, namely access to clean water and sanitary facilities. It highlights how governments, assistance organizations, and international organizations must work together to ensure that PVTGs have access to the right infrastructure and resources. The benefits of water, hygiene, and sanitation practices accomplish



the objectives of the Jal Jeevan Mission, sustainable development goal 6, and Viksit Barath 2047.

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