



Achieving Sustainable Development Goal 6 in India: Transforming Lives through Localization

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Abstract

In 2015, 63.3% of Indian rural households and 19.7% of urban households did not have access to improved sanitation measures. World Bank has noted the severity and urgency of the situation by observing that more than 520 million people in India were defecating in the open. The adoption of Sustainable Development Goals (SDGs) aligned with the Indian national development agenda concerning improved water and sanitation measures proved remarkably successful in the previous years. India has established an SDG localized model for adopting, implementing, and monitoring SDGs at national, sub-national, and local levels. SDG 6 deals with ensuring availability and sustainable management of water resources and sanitation for everyone has been translated into multiple governmental policies in India. The Indian government, under its flagship program, *Jal Jeevan Mission* (National Water Mission) is committed to providing safe drinking water through individual household tap connections by 2024 to all households in rural India. Likewise, another prominent scheme of *Swachh Bharat Abhiyan* (Clean India Mission) demonstrated success by providing access to toilet facilities in the rural households and achieving the target of Open Defecation Free (ODF) in all the districts. With the help of a series of social welfare schemes and their continuous monitoring at all levels, India is making significant progress in achieving SDG 6. For these reasons, the Indian Goal 6 experiences become crucial for other countries and provide numerous learning opportunities for them.

Keywords: India, Localization, SDGs, Sanitation, Sustainability, Water

Introduction

India is the second-most populous country in the world with a population of approximately 1.39 billion. Considering its large and increasing population, India has always witnessed huge water demand in multiple sectors, including domestic, agriculture, energy, and industries (Soumya et al., 2020). However, this massive water demand becomes critical in the light of India's limited water resources and plenty water scarce regions. Agricultural fields of the northern India majorly rely upon Himalayan river system. However, as the water flow decreases downstream, it causes water scarcity in the plains (Soumya et al., 2020). Similarly, the irrigation sector is largely dependent upon groundwater however its excessive and unsustainable extraction has led to significant depletion in its levels.

Among all, inadequate sanitation measures poses one of the massive threats to the availability of clean and safe water resources. Data suggest that around 2 billion people worldwide are drinking water from the sources contaminated by the fecal matter (Soumya et al., 2020). In the absence

of proper toilet facilities, the practice of defecating out in open and public spaces prevails both in urban and rural areas. India alone accounts for 57% of the global population defecating in open. According to the 2011 census data, national sanitation coverage was 46.9%, while rural sanitation coverage was restricted up to 30.7%. This figure continues to shrink even further when we look specifically into the coverage data of backward and tribal communities (Sujith, 2016).

Before 2014, around 568 million people in India were facing the indignity of defecating in open and public spaces due to lack of access to toilets (UNICEF). Such practices were more prevalent among the poorest citizen who could not afford household water connections and toilets. Moreover, people believed it to be impure and unhygienic to construct toilets inside houses. As per 2013-14 rapid survey on children, 22% of the Indian schools lacked toilet facilities for girl students. Likewise, around 54% of the preschools had no toilet and water arrangements on their premises (UNICEF). Half of the population does not have an access to safely managed drinking water. In 2015, 63.3% of Indian rural households and 19.7% of urban households did not have access to improved sanitation measures. High quantities of harmful chemicals like arsenic and fluoride could also be found in 1.96 million dwellings.

The practice of open defecation is detrimental for the health and well-being of the local population and the environment. The absence of adequate water and sanitation facilities and care for personal hygiene are threat to serious illness and water-borne diseases. Inappropriate human waste disposal tend to increase the risks of diseases, including cholera, typhoid, dysentery, hepatitis A, polio and other infectious diseases. India witnessed 100,000 diarrheal deaths among children below five years of age. It also causes significant impact on the women's health and often leads to violence against women. Women who are forced to move out of their house to find private spaces for defecation are more prone to physical and sexual abuse (Mahrukh et al., 2019). UN Human Rights Council has noted that more than health and crimes, open defecation is also linked with the infringement of dignity of an individual and is a human rights issue (HRC, 2009). In an environmental law case, the Supreme Court of India has observed that the failure of the municipalities in providing public conveniences forces slum-dwellers to defecate in open places and thus crucial for human dignity (Municipal Council, Ratlam v. Shri Vardhichand and Others, [1980]).

After the adoption of Sustainable Development Goals (SDGs) clubbed with Indian domestic policies on water sanitation and hygiene (WASH) the overall situation has drastically improved and appeared promising for the future (Sarkar and Bharat, 2021). UNICEF notes one of the ambitious Indian program, *Swachh Bharat Mission* (SBM), that progressed the country towards achieving SDG 6.2. It resulted in the construction of over 100 million household toilets in 630,000 villages, with an aim to provide access to sanitation to all. It helped in reducing total number of days of illness, preventing soil and water contamination and creation of around 7.5 million jobs under the scheme (UNICEF, 2018; UNICEF, 2019). Likewise, range of efforts and collaboration from central level to the grass-root level has played a significant role in the betterment of the previous situation. The paper attempts to trace the journey of SDG 6 (water and sanitation) since its adoption to the present-day implementation. After introducing the issue in the first part, the second part describes the status of right to water and sanitation existing in India before 2015. In

the third part, the paper explores the relationship between India and Sustainable Development Goals (SDGs). The fourth part illustrates the localization of SDGs as practiced in India for achieving the Agenda 2030. The paper further discusses SDG 6 in the Indian context and point out the progress and lessons from the fifth part. Lastly, it ends by commenting upon the efficiency of Indian practices and its role towards achieving SDG 6.

India before 2105

Securing water and sanitation demand has remained India's priority since its independence in 1947. India has established massive infrastructure and institutional arrangements to fulfill its goals. Construction of dams and irrigation canals helped the country to meet its water uses as well as to generate hydro-electricity. They further allowed India to overcome geographical challenges like controlling floods and providing water in water-scarce regions (Soumya, 2020). In its efforts to progressively achieve the full realization of international legal provisions, India became party to multiple environmental and human rights treaties that promotes rights concerning water and sanitation to its citizen. Considering its large population, continuous and uneven water needs, India moved forward in the direction of fulfilling water and sanitation requirements. In this context, the reports suggest that Indian actions for the Millennium Development Goals (MDGs) have effectively addressed the issue of water (UN, 2015).

Though the Indian Constitution does not expressly refer to water or sanitation rights, however, article 262 that deals with the resolution of state river water disputes specifies water rights as riparian rights (NHRC, 2021). India has enacted several laws relating to water pollution, water supply and water resources management, including Indian Easements Act, 1882, Water (Prevention and Control of Pollution) Act, 1974, and the Environment (Protection) Act, 1986. It also adopted National Water Policy in 1987 and revised it in 2002 and 2012 to ensure effective management and supply of water resources. Notably, these legal documents did not focus on the rights aspects of water and sanitation. Likewise, there exists no statute dealing with sanitation or right to sanitation however issues concerning sanitation and dignified life were expressed in various domestic legal texts.

The Indian judiciary has played an active role in interpreting right to access to clean and pollution-free water within a broader head of the right to life under article 21 (*Subhash Kumar v. State of Bihar*, [1991]; *Vellore Citizen's Welfare Forum v. Union of India*, [1996]; *State of Karnataka v. State of Andhra Pradesh*, [2000]). Similarly, the apex court recognized sanitation as an essential part of enjoying right to life with human dignity (*Virendra Gaur v. State of Haryana*, [1995]; *L. K. Koolwal v. State of Haryana*, [1988]). Further, it is established that state is responsible to provide clean drinking water to its citizen (*M. C. Mehta v. Kamal Nath*, [1997]; *P. R. Subhash Chandran v. Government of Andhra Pradesh & others*, [2001]). Likewise, it is basic duty of municipalities to provide drainage system in working conditions to sufficiently meet the needs of the people. (*Municipal Council, Ratlam v. Vardichand*, [1980]). Moreover, the courts have even highlighted the rights of the sanitation workers (*Delhi Jal Board v. National Campaign for Dignity and Rights of Sewerage and Allied Workers and others*, [2011]) and stress for the monetary compensation in case of sewer deaths (*Safai Karamchari Andolan v. Union of India*, [2014]).

India and Sustainable Development Goals (SDGs)

By the end of 2015, lack of access to clean drinking water and inadequate sanitation measures posed significant challenges to the well-being of Indian population. Its impact was largely felt by different vulnerable groups, including women, children, elderly, and the poor. Though water related MDGs demonstrated success within the Indian context, the primary challenge before the post-2015 framework involved the elimination of inequalities within the supply and access levels of water and sanitation services. Moreover, MDG target 7c that ensures sustainable access to safe drinking water and basic sanitation does not refer to the water quality. The term 'safe drinking water' is primarily employed in context with an improved source of water, for instances, piped water and not water quality. For this reason, despite emphasizing on 'safe drinking water', 41.5% water samples from urban households and 60% water samples from rural households were found to be contaminated (Mira et al., 2014).

The adoption of 2015 Sustainable Development Goals (SDGs) immensely aided the existing national water and health policies of India. The motto of SDGs, "Leaving No One Behind" is mirrored in the India's national developmental agenda of '*Sabka Saath, Sabka Vikas, Sabka Vishwas, Sabka Prayas*' (Collective Support, Inclusive Growth, Collective Trust, and Collective Efforts). India has introduced many social welfare schemes and programs that are related to several SDGs. For instance, in 2018 the Indian government launched the world's largest health protection scheme, namely *Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana* (PMJAY) that provides annual health protection of approximately US\$ 7,100 to 500 million citizens. This initiative aims to overcome expensive health expenditures for poor population and reduce inequality. India is aiming to eliminate tuberculosis by 2025 that is five years ahead of the global target of 2030. Another welfare scheme, *Poshan Abhiyan* (National Nutrition Mission) launched by the government aims to eliminate malnutrition by 2022. The program further considers the linkages between nutrition and other aspects relating to water, sanitation, hygiene, poverty. Similarly, India has often stressed upon the need for securing climate justice and aims to eliminate single-use plastic by 2022.

India is committed to implement the SDGs through nationally defined parameters drawn in accordance with national priorities and needs. For this purpose, NITI (National Institution for Transforming India) Aayog, an apex public policy think tank of Government of India, has mapped out existing domestic central and centrally sponsored schemes and their concerned ministry or department against each target of SDGs (NITI Aayog, 2018). For instance, the SDG Target 6.1 seeks to achieve universal and equitable access to safe and affordable drinking water by 2030. The NITI Aayog has associated Target 6.1 along with the 2009 launched National Rural Drinking Water Program (NRDWP) that aims to provide safe and adequate water for drinking, cooking and other domestic needs to every rural person on a sustainable basis. The Department of Drinking Water and Sanitation and Ministry of Women and Child Development is entrusted to achieve the scheme objectives and ultimately, Target 6.1. Similarly, Target 6.2 requires achieving access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations. To achieve Target 6.2, the Aayog has referred to its existing *Swachh Bharat Mission (Rural)*, *Swachh Bharat Mission*

(Urban) and the Mission for Protection and Empowerment of Women. Simultaneously, it has ensured the responsibility of the governing departments, including Department of Drinking Water and Sanitation, Housing and Urban Affairs, Ministry of Rural Development, Ministry of Women and Child Development and Panchayati Raj to achieve these targets.

India is a Union of States comprising federal structure with a strong center. The Indian Constitution has demarcated the functional subject matters of both center and state governments under Schedule VII in the form of three lists - Union List, State List, and Concurrent List. Further, there exists a three-tier local governance system at the sub-state level. Along with the efforts made by the central government, SDGs are being achieved with the continuous support of sub-national governments. Considering the federal governance structure of India, the 28 Indian States and 8 Union Territories (UTs) account for majority of the roles and functions in this direction. These state and local governments look after the planning, execution and monitoring phases of the SDGs. They work at the grass-root levels by directly engaging with the local communities to fulfill the Indian commitments for the 2030 Agenda. This arrangement makes the sub-national governments a key player in the fulfillment of SDGs.

Since the Indian States and Union Territories differ in terms of population, geographical features, natural resources, and education and health standards, therefore the sub-national governments have to undertake special care particular needs and demands of the local citizen while implementing the global SDGs. It led the local governments to pursue the localization of SDGs resulting in effective results from across the country (NITI Aayog, 2019).

Localization of SDGs

'Localizing' could be understood as the 'process of recognizing sub-national contexts in the achievement of the 2030 Agenda, from the setting of goals and targets, to determining the means of implementation and using indicators to measure and monitor progress, in addition to raising awareness through advocacy' (NITI Aayog, 2019). It aims to identify the approaches of the local and sub-national governments to realize SDGs through the bottom up actions and to ascertain the role of SDGs in devising a framework for the local development policy. Localization of the SDGs is the responsibility of all the three-tiers of Indian government.

The First Phase

The India experience of localizing the SDGs can be divided into three on-going phases that often occurs together (NITI Aayog, 2019). The first phase discusses about identifying institutions and assigning specific mandates in relation to SDGs. Based on the three-tier governance structure, the allocation has been done at three levels – Central, State, and District. Major institutions existing at the central level include NITI Aayog (successor to the erstwhile Planning Commission), Ministry of Statistics and Program Implementation (MoSPI), Central/Federal Ministries, and Comptroller and Audit General of India. NITI Aayog is responsible to ensure coordination between the Ministries and the State governments and to monitor the progress of the Goals. MoSPI was designated to realize the formulation of the National Indicator Framework (NIF) essential to track

updates in SDGs. Similarly, to discuss the roles of Ministries, SDGs and their targets have been linked with the domestic welfare schemes and the concerned Ministry or Department is required to ensure its fulfillment. Lastly, the Comptroller and Audit General of India is the apex audit body and it is mandated to conduct audit on the preparedness to achieve the SDGs. In addition, the Finance Commission of India, National training institutions, and the Legislature has demonstrated their specific role with respect to the 2030 Agenda (NITI Aayog, 2019).

At the State level, the Office of the Chief Secretary of the State has been assigned the duty to guide and oversee the matters concerning SDGs. The Chief Secretary is the top official of the State administration who also acts as a chief advisor to the Chief Minister of the State and Secretary to the State's cabinet. Line departments are mandated to prepare, implement, and monitor programs for the realization of SDGs. Further, the Planning Department and Directorate of Economics and Statistics are also involved to look after the SDGs implementation and collect crucial data for this purpose (NITI Aayog, 2019).

The Indian government structure goes further deeper to the sub-state or district level. There exist a three-tier rural local self-governance system comprising – Panchayat at the village level, Urban Local Bodies at the block level, and the District administration at the District level. The elected representatives of all these sub-state bodies are responsible to fulfill the obligations concerning SDGs at the level. In this manner, the institutions have been identified till the lowest administration level and further included in task of accomplishing SDGs.

The Second Phase

The second phase of SDGs localization emphasizes raising awareness and advocating for SDG implementation. Awareness is crucial for bringing behavioral changes among the participating actors. It ensures effective implementation of policies and creates ownership of SDGs among different stakeholders. For this purpose, the NITI Aayog being the primary body for co-ordination actively worked to sensitize the stakeholders towards SDGs.

The Indian Government took several initiatives to increase interests and commitment of all the partners on SDGs. *Firstly*, the NITI Aayog created a shared understanding among the Central and State level governments to increase their sincerity and dedication towards achieving SDGs. For this purpose, it organized national and regional consultations on each SDG except Goal 17. It invited the Ministry departments, State governments, external experts, CSOs and the United Nations to the national consultation. Along with these consultations, it also organized National Workshop on Building Capacity for Localizing SDGs. *Secondly*, the NITI Aayog played an active role in mapping every SDGs and their targets with a centrally sponsored scheme and dedicated Ministry to follow a 'whole-of-government' approach. In this way, the Aayog entrusted responsibility of achieving specific target with a particular Ministry and ultimately leaving no target unaddressed. *Thirdly*, as a torchbearer of SDGs sensitization, NITI Aayog came up with designing SDG India Index Baseline Report Dashboard in 2018. It was a composite Index having 62 indicators across 14 SDGs that listed and ranked the progress of every State and Union Territory on SDGs. It was an attempt to establish an advocacy and benchmark tool and to increase the

spirit of competition among stakeholders and motivate them for improvements. *Lastly*, the Ministry of Statistics and Program Implementation (MoSPI) was entrusted with a job to develop National Indicator Framework (NIF) to monitor SDGs. For this purpose, the MoSPI created nationally-relevant indicators and circulated them among various stakeholders for their observations followed by public consultation. Consequently, through this participatory process, a National Indicator Framework was developed with 306 indicators based on the remarks of Ministries, States, and concerned UN and other bodies. It is a crucial tool to track the progress of SDGs at the national level and further to guide policy makers and executives toward SDGs implementation (NITI Aayog, 2019).

The Third Phase

Considering the geographical, socio-economic, cultural, demographic diversities among the States, they play a crucial role in the localizing of SDGs. The third phase addresses many initiatives aiming to strengthen the implementation of SDGs by developing upon their localization. *First*, it includes that after the mapping and designating Ministries for specific targets, the line Ministries identified strategies to align their plans with specific goals and monitor them. For instance, the Ministry of Panchayati Raj advised local government to employ SDGs within their governance plans (village development plans). *Second*, the SDGs should be understood and realized in local contexts. The national level consultations and discussion on SDGs clarified its thematic details and allowed the sub-national governments to open regional consultations for more detailed analysis on the implementation of targets at sub-national levels. It allowed them to conduct workshops local government officials, rural communities, civil society organizations and others. *Third*, the governments should advance indicators and metrics and institute monitoring mechanisms to keep a track of policy direction and implementation progress. On the basis of inclusive consultations, the MoSPI established NIF that acts as a data sources for implementation of SDGs. Similarly, States are advised to draft State-specific indicators to track their actions. *Fourth*, the State and UT governments should establish their own policy and strategy framework to SDGs. Due to the critical role of States in achieving SDGs, the NITI Aayog developed State level Vision documents and SDG Action Plans relating to SDGs. Further, it encouraged the States to identify a nodal department to co-ordinate at the State level and map existing government schemes with the SDGs. The mapping process is also helpful in ascertaining any gaps in the existing policy framework so that they can be adjusted with other required action plans. Moreover, the Aayog stresses State's to develop capacity development initiatives and budget planning and allocation for SDGs.

States have actively taken part in organizing implementation system for SDGs. 31 States and UTs have defined their nodal agency for coordination, generally being the Department of Planning in many cases. Some of them have even defined nodal structures to be followed within various departments. While 23 States and UTs have prepared the Vision document, the others are working on its development. Most of them have followed 'whole-of-government' approach and working on aligning budget to State specific SDG target. Further, similar to NITI Aayog at the central level, States are also undertaking periodic reviews on the implementation mechanisms by concerned State Departments and sub-national governments.

After 2015, in the first four years, the Centre, State and District level governments have emphasized primarily upon developing roadmaps and monitoring mechanism towards SDGs. Gradually, they are on the move to make SDGs as the core developmental framework where all the planning and policy making should address its targets. The early lessons deriving out of the localization of SDGs are promising. They provide unique opportunity to strengthen the Indian federal structure and commit social justice to the rural, deprived and marginalized segment of the society (NITI Aayog, 2019).

Sustainable Development Goal 6 in India

Sustainable Development Goal 6 aims to ensure availability and sustainable management of water and sanitation for all. It is determined to secure safe, affordable and accessible drinking water, sanitation facilities and hygiene for every person by 2030. The goal is focused upon reducing water pollution, increasing water-use efficiency, and promoting participation of local communities in improving water quality.

Goal 6 consists of eight targets dedicated to improved instances of water and sanitation measures. It includes universal and equitable access to safe drinking water (6.1); access to equitable and adequate sanitation, ending open defecation, and promoting women and girl hygiene (6.2); improving water quality with recycling and safe reuse and minimizing water contamination (6.3); increasing water-use efficiency and addressing water scarcity through sustainable withdrawals (6.4); implementing integrated water resource management at all levels (6.5); expanding international cooperation and capacity-building support (6.a); strengthening the participation of local communities in water and sanitation management (6.b)(UNGA, 2015). All these targets are expected to be secured before 2030, except Target 6.6 that seeks to protect and restore water-related ecosystem by 2020.

India has recently released SDG India Index 3.0 that measures its progress on SDGs. As per the Index, eight national level indicators have been identified that address five out of the eight SDG 6 targets (NITI Aayog, 2021). These indicators were selected based on the data available at the sub-national levels and that can ensure comparability among the States and UTs. With the help of these indicators, the performance of all the Indian States and UTs has been recorded and ranked through SDG Index Score. As per this Score, the Indian States of Goa and the UT of Lakshadweep scored the highest 100, where the score of other States ranged between 54 and 96 and the score of the UTs ranged between 61 and 99 (NITI Aayog, 2021).

These indicators present a highly promising picture of Indian achievements on SDG 6. According to the Index, Indian States have constructed 100% Individual toilets in rural households. Moreover, in 2020, it verified all the Districts of India as Open Defecation Free (ODF). With reference to access to safe and adequate drinking water, 51.36% of the rural population has become the beneficiary of PWS and 97.44% of the rural population has access to improved water source of drinking water. In comparison to 2013-14 reports when 22% of the Indian schools lacked toilet facilities for girl students, today 95% of the schools have a separate toilet facility for girls. The target is to cover all the schools in the country.

An independent survey conducted by UNICEF finds that households in ODF villages have accumulated the benefits of 50000 Indian rupees. It further highlights the benefits of SBM as reduced medical expenditures, time saved from illness, lowering in mortality rates and increase in the property value with the construction of toilets (UNICEF, 2018). Likewise, in another study, UNICEF finds that ODF villages have more access to contamination-free soil and food (UNICEF, 2019).

Similarly, presently 88.4% of high polluting industries comply with waste-water treatment as per Central Pollution Control Board (CPCB) norms. North-Eastern States of India including Manipur, Nagaland, and Tripura has accomplished this target. The target is to ensure that all the industries comply with the wastewater treatment norms. With regards to the groundwater withdrawal, a stage of 70% or less is treated as safe. India stands at an overall groundwater withdrawal of 63%. However, States like Delhi, Haryana, Punjab, and Rajasthan pose a challenge where the groundwater extraction is significantly high. They have an extraction percentage of more than 100 indicating that their annual groundwater consumption is more than the extractable ground water resources. Other large and densely populated States like Uttar Pradesh, Tamil Nadu and Himachal Pradesh also range between 70% and 100%. It is desirable that the figures in these States should be reduced below 70%. Adding to it, presently, 17.24% of the Blocks are considered as over-exploited and the target is to reduce this figure to 0.

Effective Welfare Policies on Water and Sanitation in India

Among the other SDGs, India made notable success in the field of water and sanitation. The scenario changed drastically between the years 2016 to 2019. With the help of two of its major schemes, India could achieve SDGs ahead of 2030. The Indian government, under its flagship program, *Jal Jeevan Mission*, is committed to providing safe drinking water through individual household tap connections by 2024 to all households in rural India. This scheme significantly covers the Indian SDG Target 6.1 dedicated to providing access to safe and reliable drinking water source for everyone. Likewise, the other prominent scheme of *Swachh Bharat Abhiyan* (Clean India Mission) demonstrated success by providing access to toilet facilities in the rural households and achieving the target of Open Defecation Free (ODF) in all the districts. This scheme has been further divided into two parts as *Swachh Bharat Mission (Gramin)* and *Swachh Bharat Mission (Urban)* dedicated to improve sanitation and hygiene in the rural and urban localities respectively. It aims to accomplish SDG Target 6.2 through constructing toilets and waste management. It is pertinent to understand these schemes and how they brought changes to the lives of the poor and marginalized people.

Jal Jeevan Mission (National Water Mission)

The Department of Drinking Water and Sanitation is the nodal body under the Ministry of *Jal Shakti* (Ministry of Water Power) to manage drinking water and sanitation related issues in rural India. Launched in 2009, the National Rural Drinking Water Program (NRDWP) was restructured as a prominent scheme of 2019, *Jal Jeevan Mission* (National Water Mission) that aims to provide Functional Household Tap Connection (FHTC) to every household by 2024. The Mission

facilitates the collective goal of *Har Ghar Jal* (Providing Water to every household). It is committed to ensure in-village water supply infrastructure, reliable and sustainable water source, transfer of water, technological intervention for water treatment, grey water management, and capacity building of various stakeholders. The scheme undertakes community approach to water and aims to make water everyone's priority. It ensures awareness, education, and communication among the masses (Ministry of Jal Shakti).

At the start of the Mission, only 17% of the rural household had access to tap water supply. Over the last 2.5 years when the spread of COVID-19 disease followed by the restrictions and lockdown caused due to it imposed huge challenge, yet the Government made speedy efforts to increase the coverage of the people under the scheme. Consequently, 43.4% of the total rural household are having piped water supply to their homes at present. It is provided that in total 1,18,812 villages and 81 districts have 100% tap water connections. By providing assured tap water supply to all rural households till 2024, India will achieve its commitments under SDG-6 much before 2030 (Ministry of Jal Shakti, 2021).

Swachh Bharat Abhiyan (Clean India Mission)

'*Swachh Bharat Abhiyan*' (Clean India Mission) is a flagship scheme of the Government of India dedicated to improve sanitation. The Prime Minister of India launched the scheme on the birth anniversary of great leader Mohandas Karamchand Gandhi on October 2, 2014. The scheme was mandated as a nation-wide campaign for the elimination of open-defecation through construction of house-hold and community-hold toilets, mass scale behavioral changes, and establishing monitoring mechanisms for toilet construction.

On October 2, 2019, all the Indian villages, Gram Panchayats, Districts, States, and Union Territories declared themselves as "open-defecation free" (ODF) with the construction of 100 million toilets in rural parts of the country. The Mission has now entered into its second phase, that is, ODF-Plus, to ensure the continuity of ODF behaviors and safe solid and liquid waste management facilities for all without leaving anyone behind.

Both the schemes launched by the Government of India are tremendously improving the needs of the people for safe and accessible water and sanitation. With each passing day, they are achieving new heights and taking India closer to achieve its Goal 6 before 2030. These government initiatives have remarkably uplifted the lifestyle, health and social challenges of the rural people residing in Indian villages. The *Swachh Bharat* initiative not only helped in improving sanitation practices, however also led positive impacts on the environment. It addressed another burning issue of garbage disposal. Moreover, it has brought respect to the individuals involved in cleaning and waste management processes (PBNS, 2022).

State Participation and Good Practices

Along with the Central Government schemes, States and sub-national governments are the key agents to implement these goals on ground. One of the features of SBA was that it provided

autonomy and flexibility to the State government to implement these schemes as per their suitability. For instance, the Chhattisgarh State, decided to pursue community-based approach instead of subsidy-driven approach for implementing *Swachh Bharat Mission*, allowing local communities to take charge on field for the construction of toilets and promote sanitation measures. Notably, the Government of India has incentivizes the toilet building by providing Rs. 12000 (157 USD) to every household for its construction. It transfers the incentive amount to the Panchayat, that is the local village government, to further provide it to the beneficiaries. Here the local government has the flexibility on the preferred strategy of incentive allocation. They may allocate the entire amount to the poor household, half amount to the middle-income household, while no amount to the rich and efficient families. Highlighting this flexibility, the CEO of Raigarh Zila Parishad, a district-level officer in Chhattisgarh State, mentioned that they have created a district-level team to scale up sanitation campaign and when it creates the demand for building toilets, the officials encourage communities to construct toilets using own money and resources. This approach brings a sense of responsibility and ownership among the natives resulting in higher usage of toilets. Once the village is declared as ODF, only then the officials transfer the subsidy amount to the local population. Additionally, the State included another condition that the amount should be provided for using the toilets and not constructing it. For this purpose, after the construction of the toilets the communities should use them. There will be inspection by the State and District level teams in the three months, followed by another inspection from the State level team in six months. Only then the incentive amount can be provided to the beneficiary household. In this manner, the State and District authorities have replaced the criteria of incentive amount from toilet construction to the actual use of the toilets. Through this change, they not only established a monitoring mechanism however also attempted to change behavior of the people by including toilets usage in their habit.

These schemes have not only ended the practice of ODF but also empowered local and marginalized people. One of the female residents from Tipakhol, one of the first villages in Chhattisgarh State to be declared as ODF, described that they constructed their toilets themselves using their own money and locally available resources like bamboo and stones (Somya, 2016). Importantly, before the scheme women did not participates in the village-level meetings, however the situation has changed since now they are playing active role in the village development. Due to these approaches, the local people themselves became the brand ambassador to spread awareness and self-capable to help toilet construction in the adjacent villages. The State further adopted strategies like restraining those who do not have toilets in their household to contest election. Also, it restricts such people from availing any benefits from the government.

The innovative practices adopted in the Chhattisgarh State highlight their sincerity and commitments towards achieving ODF status and adequate sanitation and hygiene. First of all, they placed people as a central to their action plan. The State had a concept of 'Navratna' meaning nine gems, indicating nine prominent people from the community leading the sanitation movement. In addition, India has *Gram Sabha* (a general assembly of all the people from village) in every village as a democratic setup at the lowest level. These *Gram Sabha* have constituted vigilance committees composed of women and children, known as '*Swachhta Commandoes*'

(Cleanliness Commandoes). The function of these Commandoes is to look around during morning and evening time that the ODF practices are being followed by the communities. They also maintain a file known as '*Swachhta Panji*' (Cleanliness Register) to record the discussions on cleanliness by the *Gram Panchayat* (Village Council). Chhattisgarh is among the most backward States of India having 85% of its population practicing open defecation. However, their commitment and implementation strategies are praiseworthy and inspiring for other States and countries.

Likewise, States have demonstrated several effective practices towards securing water for its population. Considering the Indian state of Gujarat that is primarily consists of water scarce regions have demonstrated remarkable outcomes towards achieving Target 6.1. Several strategies have satisfied the needs of the local population and provided them water supplies. Inter-basin water transfer from the river Narmada project waters to the deprived regions of Gujarat, including Kutch, Saurashtra and North Gujarat have proved significant. Shifting water supply from ground water based to surface water based is yet another strategic move to help the local population. For providing improved sources of water and PWS, a network of pipelines has been laid along the State that ensures double security of these water sources. Lastly, the involvement of local population and community participation by constituting *Pani Samitis* (Village Water and Sanitation Committees) work as local public water utilities and further achieve Target 6.b. These committees being composed of 50% men and 50% women acts as change agents who bring drinking water security in their villages. Touching upon the notion of equity, inclusiveness and mutual trust, these welfare policies have open avenues for long-term engagements with the local population.

Conclusions

Being the second-most populated country, India balances its huge water demand with limited resources. It sets an inspiring example for water and sanitation management through a catena of judicial decisions on the subject-matter and public participation on grass-root level. Independent studies notes that government plans and policies have contributed to an increased quality of life of the population. Amid prevailing economic and environmental stress, India remained committed to the spirit of leaving no one behind by improving safe drinking water and access to toilet facilities, particularly for women and rural communities. In this context, the research paper highlights Indian experiences of securing SDG 6 and outline crucial lessons from its implemented policies. The Indian localization approach demonstrates an impressive strategic model on SDGs. Application of the Indian SDG localized model secures enormous water demands, improves infrastructure, creates opportunities, and strengthens democratic ties. Further, the adoption of two of its prominent schemes, *Jal Jeevan Mission* and *Swachh Bharat Abhiyan* has significantly fulfilled the water and sanitation related needs of local communities. Provided that a large population belongs to poor and under-developed region, Indian experiences on achieving SDGs will play a substantial role in setting examples for other countries. Moreover, it suggests inclusive and structured water management policies beneficial for applying SDG 6 in other parts of the world.

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