



Swachh Bharat Mission: an illustrative Case Study of Dungeerpur, Rajasthan, India

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Introduction

Safe drinking-water, sanitation and hygiene are the fundamental requirements for protect public health and well-being as it promotes and improves the standard of living, lifestyles, livelihoods, education, and dignity further creating resilient communities living in healthy environments. Numerous NTDs WASH (Water, Sanitation and Hygiene) diseases such as trachoma, jaundice, soil-transmitted helminths and schistosomiasis can also be prevented by healthy water and sanitation conditions. Diarrhoeal deaths as a result of inadequate WASH were reduced by half during the Millennium Development Goal (MDG) period (1990-2015), with the significant progress on water and sanitation provision playing a key role [2].

In India, the constitutional right to access to clean drinking water can be drawn from the right to food, the right to clean environment and the right to health, all of which have been protected under the broad heading of the RIGHT TO LIFE, guaranteed under Article 21 of the Constitution.¹ Sanitation had been a key priority in India from the ancient times. Focus on sanitation and hygiene was defined as important priorities in Vedic scriptures. Ancient civilizations like the one in Indus Valley were also known priorities sanitation, as remnants of toilets have been found in the historical sites [6]. But with the onset of colonial rule, sanitation ceased to be a national priority. The gradual increase in rural poverty under colonial rule, rise of urban spaces and population also acted as key factors as to why sanitation lost priority. Much of India's sanitation problems today can be traced back to the country's colonial past, as the practice of administrative apathy continued for decades, even after independence. In 1865, a sanitation police was established under the Military Cantonments Act and for the first time, sanitary boards were created in each province to look af-

tercivl sanitation conditions. Most municipal reforms were focused on eradication of epidemics and construction of estates, but no programme addressed the sanitation needs of Indians. By 1947, the Indian population which was more than 30 crores, had less than 1% sanitation coverage and this statistic did not improve for a long time. Although post independence, the Five Year Plans focused on public health and sanitation, with Union budgets allocating significant amounts for the same [8].

The series of sanitation programs included Central Rural Sanitation Programme (CRSP) in 1986 focusing to construct the individual sanitary latrines for the personal use of the people living below the poverty line, Total Sanitation Campaign (TSC) of cleanliness in 1999 in order to restructure the Rural Sanitation Programme and Nirmal Gram Puraskar in 2003 to boost the Total Sanitation Campaign maintaining clean environment as well as making villages 'Open Defecation-Free' villages by the Panchayats, Blocks and Districts followed by Nirmal Bharat Abhiyan (NBA) started in 2012 and then Swachh Bharat Abhiyan in 2014 on 2nd of October. However, all the sanitation and cleanliness programmes run by the Indian government earlier were not as effective as the current Swachh Bharat Abhiyan of 2014.

Swachh Bharat Mission (Urban)

Swachh Bharat Abhiyan Urban (SBM-U) was launched by the Prime Minister of India Narendra Modi at Rajghat, New Delhi on October 2 in the year 2014 with an aim to make India clean and Open Defecation Free (ODF) and scientific management of the entire Municipal Solid Waste (MSW) generated. In 2021, PM Modi introduced the Swachh Bharat Mission-Urban 2.0 with the objective of making all Indian cities 'Garbage Free' and 'Water Secure. Due to the huge IEC and capacity building activities under SBM, by 2018,

around 89 million household toilets were built since 2nd October, 2014. The Government of India, has made remarkable strides in reaching the Open Defecation Free targets. 36 states and union territories, 706 districts and over 603,175 villages have been declared open defecation-free as of Jan 2020 [9].

The progress of SBM was clearly visible throughout the nation along with the state of Rajasthan. The initiative has started showing its results in the past few years and a sense of responsibility has been evoked in the minds of the citizens. There is a huge participation in the campaign from all the corners of the nation. The drive has taken the face of a national movement and people are joining hands to clean their surroundings and environment [10].

Dungarpur: A Case Study

Dungarpur is a city in the southernmost part of Rajasthan state of India. It is the administrative headquarters of Dungarpur District. It was founded in 1197 by Samant Singh, the eldest son of the ruler of Mewar, Karan Singh. The district had a population density of 368 inhabitants per square kilometre (950/sq mi) [11]. During the launch of Swachh Bharat Mission, in 2014, the state initiated Special Cleanliness Drives in order to aware the officials and community about SBM (U). As part of the Swachh Bharat Abhiyan, an annual survey of cleanliness, hygiene and sanitation in villages, cities and towns across India started with the name of Swachh Sarvekshan which aimed to make India clean and free of open defecation by 2 October 2019. The first survey was undertaken in 2016 [12].

At that time, Dungarpur emerged as a first Class IV city not only in the state but throughout the country to be ODF under Swachh Sarvekshan 2017 and after that every year, the city grabbed the position of cleanest city among the 4261 civic bodies across the country based on the reports of Citizen Feedback, ODF, Solid and Wet Waste Disposal and Public Transport. But it did not perform well in Swachh Sarvekshan 2019 and ranked the seventh cleanest city in the country in its category [13].

Slowly and gradually, with the collaborative efforts of Local Bodies administrator, Elected representatives and community awareness along with the feeling of ownership, the Dungarpur Municipal Council received two awards from President Ram Nath Kovind for emerging as the cleanest and garbage-free municipal council in the state on November 20. The city was also chosen among the top

cities in the category of 'Garbage Free' under the Swachh Sarvekshan 2021 [14]. Dungarpur Municipal Council was again honored by President Draupadi Murmu at the national level in the Swachh Sarvekshan 2023 at Pragati Maidan in Delhi. as a result of their outstanding performance in the cleanliness survey, earned the prestigious recognition at the national level for continuous 5 times. The city not only gained its recognition on national Dashboard but also served as an inspiration for other cities and municipalities to strive for excellence in sanitation practices [15].

Situation before the initiative

On 21st July 2010, the Department of Environment, Government of Rajasthan had rolled out a notification for all District Collectors to implement the ban on plastic carry bags in their district in compliance with Section 5 of Environment (Protection) Act, 1986 [16]. The objective of the State Government was to make Rajasthan "Plastic Carry Bag Free". It was an alarm for each and every city of the country to address the issues being faced due to the use of plastic carry bags such as: 1. Health risk to stray animals consuming plastic bags along with the food in the dumping sites. 2. Plastic degrading quality of the soil 3. Blockages in drains 4. plastic spreading on the road creating nuisance 5. Degrading the beauty and honour of the city. Gapsagar Lake, one of the largest lakes in the city was polluted due to dumping of plastic bags in the lake. Dungarpur, being a tribal belt city, having very less of urbanization, lack of modern hi tech equipments for solid waste management, lack of resources, general nature of community and perception on open defecation and hence very poor awareness on sanitation was among the major challenges the city was facing.

About the initiative

Dungarpur Municipal Council (DMC) was the first city in the state to implement the Plastic banning mission and in September 2016 issued a notification in the local newspaper to inform the citizens of the same and designed IEC campaigns, awareness programmes and capacity building workshops to create awareness amongst people. Since then, cleanliness became the part of routine in every citizen of the city. DMC planned the campaign in a strategic manner and divided the community on the basis of their levels of understanding and creation of wastes. First category and the most crucial target audience were shopkeepers, retailers, wholesalers, vendors and hawkers. Then came the second category comprising of Households whereas children from schools and colleges were the third group. Lots of awareness campaigns and interpersonal

communications exercises were performed with each and every group and they were monitored by an internal special enforcement committee consisting of officials from sewerage, revenue, excise and fire departments under which IEC and awareness strategies were formed based on the target group for achieving Plastic bags Free Dungaerpur. After generating awareness, schedule of fines and penalties for defaulters was also created to punish those people who even after getting awareness were obstinate to change the behavior. Not only plastic banning, the city did a lot in wet waste composting and ODF. The road to success was not at all easy for the tribal belt dominating city. The dust bins, cloth bags and IEC material was given free to the community once for creating awareness and changing the mindset of the community towards cleanliness. As a result, In 2021, the city was awarded as Garbage Free City under Swachh Sarvekshan covering both the objectives of the mission, ODF and SWM.

Cause of the success

With plethora of Information, Education and Communication activities, capacity building programs and community participation under strong leadership of elected representatives who were willing to bring change, Dungaerpur Municipal Council organized lots of meetings with various stakeholders for making a shift from plastic carry bags to other sustainable options like jute bags, paper bags, cloth bags etc. It was supported by judiciary officials along with other department officials and then the city was monitored through reinforcement committee. A fine of Rs 500 for first default with an increasing on subsequent defaults/violations was set and the amount of fine would increase with every subsequent violation. A percentage of this fine amount was given as an incentive to the informers. Tonns of plastic was seized during the last 4-5 years and revenue generated by the fines imposed on the plastic bag users. The initiative helped to reduce the use of plastic carry bags from 100% to 0%. Among household target community, the prizes worth 1000 Rs were awarded by ULB for promoting and encouraging people's participation towards cleanliness. Interactive competitions like painting rangoli competitions, pledges, rallies, folk media and puppet shows were organised focusing on topics related to zero plastic usage in the school and colleges¹⁷. Student committees are formed with 8 members; 3 teachers and 5 students were formed in the schools and colleges. Various rallies, pledges and awareness programmes were organized to generate awareness among citizens. The President and Commissioner of the Dungaerpur Municipal

Council also attended these programmes to motivate people to not use plastic carry bags.

A convergence of two national missions

NULM and SBM was made by engaging Self Help Groups (SHG) of NULM under DMC with the support of a local NGO for making bags from Sario waste clothe to provide an alternative to plastic carry bags. Currently, 2 of the SHGs are functional, one with all women members and the other consisting of differently abled persons. The raw material for cloth bags was provided by the Dungaerpur Municipal Council. Each SHG member made 5 to 8 bags per day. These SHGs prepared Masks also during Covid pandemic.

With continuous efforts for the decades under various components of SBM, now Sanitation has become the religion of the city. In 2023, Dungaerpur model of waste management was declared best and called for replication by NGT.¹⁸ Deepak Maheshwari, chairman of the Rajasthan committee of NGT, said that despite being a small city, Dungaerpur was found to be following all the rules laid out for solid waste management. The model of Dungaerpur waste management was found to be the most effective in a survey carried out by state level committee of National Green Tribunal (NGT). The committee, constituted to ensure the implementation of the rules laid out for the solid waste management, has suggested all the local bodies of the state to take up Dungaerpur model as an ideal. The city has a planned structure for not only dry and wet waste but also for hazardous and metal waste. The collected segregated waste is then taken to the material recovery facility (MRF) where it is further segregated and sent out for recycling. The city has a population of nearly 55,000 residents where the door-to-door collection from 10,500 houses has been 100% since the past two years, Three door-to-door garbage collection agencies along with three NGOs carry out the waste collection in 30 wards. The city generates 16 ton waste per day where 10 ton is dry waste and 6 tonne comprises wet waste. The garbage collection vehicles have four compartments for dry waste, solid waste, bio-hazardous waste and food collection for the gaushalas. The timings for the collection of waste from the residential areas is 6am to 11am and in the commercial areas it is 4pm to 8pm. The waste collected is 100% segregated and is then sent to the treatment plant which is 5km away from the city. The treatment is carried out in five different ways where wet waste is treated by the biogas plant which produces both cooking gas and electricity, compost is produced by vermin composting, recyclable paper

and solid waste is sent out for recycling, and inert waste which cannot be treated is filled up in sanitary landfills. Since the compost being produced exceeds the requirement of manure at the parks in the city, the excess compost is sold out. A gaushala has also been set up near the biogas plant to cater to the stray cattle menace with penalties imposed on the people who leave their cattle out in the open

Results

Plastic has become ubiquitous and over the last 2-3 decades, the menace of plastic carry bags has increased manifold across the country. These concerted efforts have ensured that the citizens have an alternative to using plastic bags and have made the city visually cleaner. Following impacts which the city signified were

- Generation of Awareness among citizens for the mission SBM
- Community participation
- Significant role of NGOs & elected representatives
- Revenue generation through penalties on spreading litter, use of plastic and OD
- Visible cleanliness and beautification of the city
- Convergence of two national schemes hence saving the fund and utilization at its maximum
- Employment and livelihood to SHGs
- Sustainable development
- Swachh Sarvekshan awards for Cleanest Class IV city

Way forward

The study is scalable, sustainable and replicable. It may be taken up as a best practice for other states and cities. It clearly defines how, with the strategic IEC, planning, community participation and involvement of various line departments, convergence of different centrally sponsored schemes and with provision of alternatives long with a tough monitoring and penal framework, a program or mission can be successfully implemented and a great example of BCC (behavior change communication). It is learning for other small cities to ensure the participation of the citizens.

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