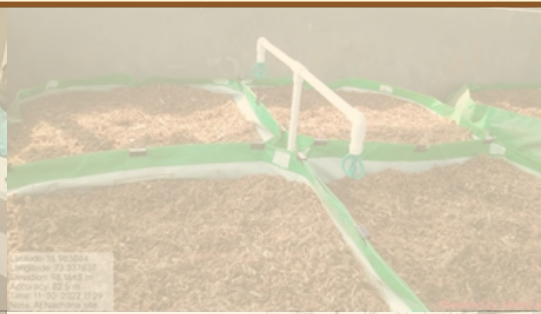




# BRINGING VISION TO REALITY

TAKING STOCK OF 20 SUCCESS STORIES IN WATER  
SUPPLY AND SANITATION SECTOR ACROSS  
MAHARASHTRA





# BRINGING VISION TO REALITY



Latitude: 19.144.63°  
Longitude: 74.954°  
Elevation: 500.118 m  
Accuracy: 10.1 m  
Time: 16-09-2022  
View: Map/Location

# ACKNOWLEDGEMENT

We would like to take this opportunity to express our gratitude to the people and organizations that have contributed in documentation of these success stories.

First and foremost, we are thankful to Principal Secretary, Water Supply and Sanitation Department, Government of Maharashtra, for giving us this opportunity to work on these success stories. We would also like to thank the Joint Secretary, Water Supply and Sanitation Department, Government of Maharashtra; Director, JJM, Maharashtra and Director SBM(G), Maharashtra for their support in facilitating this exercise.

We would like to thank CEOs, Dy. CEOs and district and block officials of all 34 Zilla Parishads in Maharashtra, especially Kolhapur and Aurangabad Zilla Parishads, for supporting identification of success stories, facilitating our visits to the villages and providing their inputs. Thanks also to the village level stakeholders of these success stories for taking out time to provide us precise information about their villages and sharing their experiences.

# INDEX

SR.NO	TITLE	PAGE NO.
1.	Maharashtra's first rural FSTP - Nachne GP in Ratnagiri	07
2.	Sustainable sanitation services in Siregaonbandh, Gondia	11
3.	Enabling environment for O&M of water supply in Kolhapur	14
4.	Effective GWM using SBT - Kundal GP in Sangli	17
5.	Comprehensive SLWM in Sitepar, Bhandara	20
6.	Bucket test for equitable water supply in Kolhapur district	26
7.	Strategic FSM & PWM planning and execution by Sangli district	29
8.	Water scarcity to water efficiency - Dawatpur GP in Latur	33
9.	Efficient PWM Through CSR Support in Vasind GP, Thane	36
10.	WQMS by self-mobilised community in Muli, Parbhani	39
11.	Together for clean and green village - Uti (bk) GP in Latur	42
12.	Sustainable water supply through FHTCs for all in Bangaon, Aurangabad	45
13.	Professionalization of O&M services for SWM in Ladgaon, Aurangabad	47
14.	Decentralised approach for GWM in Barwadpada, Palghar	50
15.	Setting up Large-Scale and Efficient Facilities for SLWM - Pimpalgaon GP in Nashik	54
16.	100% household level biogas plants in Shelkewadi, Kolhapur	58
17.	DPR preparation for SBM(G) II in mission mode - Aurangabad	60
18.	SLWM in a smart village - Hadoli GP in Nanded	63
19.	Consistent efforts for sustainable water service delivery - Hiwre, Sangli	66
20.	HGJ declaration and certification in mission mode - Aurangabad	68

# ABBREVIATIONS

Abbreviations	Fullform
ACF	Activated Carbon Filter
AIP	Annual Implementation Plan
ASHA	Accredited Social Health Activist
ATM	Automated Teller Machine
BDO	Block Development Officer
BRC	Block Resource Coordinator
CB	Capacity Building
CCTV	Closed-circuit television
CEO	Chief Executive Officer
CI pipeline	Continuous Integration pipeline
CNA	Capacity Needs Assessment
CSC	Community Sanitary Complexes
CSR	Corporate Social Responsibility
DPR	Detailed Project Report
Dy.	Deputy
ESR	Elevated Surface Reservoir
FC	Finance Commission
FGD	Focus Group Discussion
FHTC	Functional Household Tap Connection
FSM	Faecal Sludge Management
FSTP	Faecal Sludge Treatment Plant
FTK	Field Testing Kit
GI	Galvanized Iron
GoM	Government of Maharashtra
GP	Gram Panchayat
GSDA	Groundwater Survey and Development Agency
GSDA	Groundwater Surveys & Development Agency
GWM	Greywater Management
HAL	Hindustan Aeronautics Limited
HDPE	High Density Polyethylene
HH	Household
HP	Horsepower
IEC	Information, Education and Communication
IHHL	Individual Household Laterines
ISI	Indian Standards Institute
ISO	International Organization for Standardization
JJM	Jal Jeevan Mission
JSW	Jindal Steel Works
KLD	Kilo liter per day
km	Kilometer
KT Weir	Kolhapuri Type Weir
LPCD	Litres Per Capita/Day
MIDC	Maharashtra Industrial Development Corporation

Abbreviations	Fullform
MJP	Maharashtra Jeevan Pradhikaran
MLA	Member of the Legislative Assembly
MLD	Millions of liter per day
mm	milimeter
NABARD	National Bank for Agriculture and Rural Development
NADEP composting	Narayan Deotao Pandharipande composting
NGO	Non-governmental Organizations
O&M	Operation & Maintenance
ODF	Open Defecation Free
ODF Plus	Open Defecation Free Plus
OT	Orthotolidine
PD	Project Director
PHC	Primary Health Centre
PRA	Participatory Rural Appraisal
PSF	Pressure Sand Filter
PVC	Polyvinyl Chloride
PWM	Plastic Waste Management
PWS	Piped Water Supply
RO	Reverse Osmosis
RRWSS	Regional Rural Water Supply Scheme
RWS	Rural Water Supply
SBCC	Social and Behavior Change Communication
SBM (G) II	Swachh Bharat Mission (Grameen) Phase II
SBT	Soil Bio-Technology
SDG	Sustainable Development Goal
SHG	Self Help Group
SLWM	Solid Liquid Waste Management
STP	Sewage Treatment Plant
SWM	Solid Waste Management
SWSM	State Water and Sanitation Mission
TCL	Terephthaloyl Chloride
TDS	Total Dissolved Solids
UNICEF	United Nations Children's Fund
VAP	Village Action Plan
VDO	Village Development Officer
VSP	Village Swachhata Plan
VWSC	Village Water and Sanitation Committee
WASH	Water, Sanitation and Hygiene
WATSAN	Water and Sanitation
WQ	Water Quality
WSP	Waste Stabilisation Pond
WSS	Water Supply Scheme
WSSD	Water Supply and Sanitation Department
WTP	Water Treatment Plant
ZP	Zilla Parishad

# BACKGROUND

Maharashtra is progressing rapidly towards the goal of achieving Functional Household Tap Connections (FHTCs) for all rural households under Jal Jeevan Mission and towards becoming ODF plus under Swachh Bharat Mission Phase II. With its innovative approaches, strong institutional arrangements, focus on behaviour change, technical innovations and conducive environment for learning and adaptation, the State is one of the front runners in water supply and sanitation sector.

Various innovations, adaptations and viable solutions on ground have played crucial role in addressing specific issues and achieving desired progress in the state. These 'success stories' have wide scope for adaptations, replication and scaling up to ensure sustainability of the gains and achievements.

UNICEF Mumbai, with technical support from PriMove, is working on differentiated system strengthening to deliver JJM and SBM(G) II at State Level and achieving sustainable service delivery through effective O&M in Kolhapur and Aurangabad districts. Under the project, UNICEF and PriMove have attempted to document 20 success stories at GP, cluster, block and district level. Each of them touches upon different key components of the programs such as district level strategizing, planning and execution, convergence, SBCC, sustainability, active community participation, sustained O&M, use of innovative technologies, etc. These are stories of proactive volunteers and functionaries, of communities gearing up to address emerging needs, of village bodies ensuring sustainable WASH service deliveries, of committed volunteers bridging the gap between desired and existing status of WASH, of technological solutions.

We hope that this industrious effort will be appreciated and will become a useful resource in the water supply and sanitation sector.

# LOCALISATION OF SDGS

India, along with 193 countries, is a signatory to the declaration on the 2030 Agenda for Sustainable Development, comprising of 17 Sustainable Development Goals (SDGs). Having world's 17 per cent of the population, India has a considerable responsibility to global SDG achievement. The country is committed to building a sustainable future for its citizens, and realises the importance of localisation of these goals at the grassroots level to translate policy into outcomes.

SDGs have a strong correlation with the overall goals of various flagship programs of India, in this case JJM and SBM(G) II, which are integral to the goals of rural development. For instance, targets under SDG 6 - Clean Water and Sanitation - are mirrored in the program objectives of JJM and SBM(G) II which aim to achieve universal access to adequate, good quality water and sustainable sanitation for all. Therefore, Government of India has classified these goals into 9 themes, of which 2 themes - Theme 4: Water Sufficient village and Theme 5: Clean and Green village, are most relevant here.

Majority of these success stories have encapsulated the essence of these themes through their transformations, actions and efforts on the ground. Some stories, such as Nachne's story of becoming the GP with Maharashtra's first rural FSTP, depict how climate change measures and climate resilience has been integrated into planning. Stories of two villages- Shelkewadi, a small village with 100% household level biogas plants, and a big village Pimpalgaon, with a large-scale centralised biogas plant, represent how GPs with diversities are reducing carbon footprint and improving the share of renewable energy.

Others stories like the story of Uti Bk, story of Siregaonbadh and that of Kundal, highlight active efforts taken by GPs to achieve access to adequate and equitable sanitation and hygiene for all by ensuring gender inclusion, as prescribed under SDG 6 and sustainable management and efficient use of natural resources, as per SDG 12. Whereas importance of safely managed, affordable and reliable sanitation infrastructure is brought to light by action taken in Barwadpada (construction of household level magic pits) and Vasind (centralised treatment for biodegradable and plastic waste).

Last but not the least, stories of Dawatpur and Bangaon illustrate that motivated GPs and aware communities can together transform their villages from being water scarce to becoming water sufficient. It makes us realise that a focus on participatory O&M of water supply schemes and strengthening of water sources can ensure universal and equitable access to safe and affordable drinking water for all through sustainable service delivery.

Considering the complex nature of SDGs and the interlinkages between them, achievement of the goals at pan-India level is a challenging task. Nevertheless, it is hoped that this effort, to document the villages which are already on their way to achieve these goals, will inspire rest of the villages to begin their journeys towards localising the SDGs.

# METHODOLOGY

As the first step towards documentation of the stories, a list of possible success stories across the State was prepared in consultation with SWSM officials. The list was analysed based on the available data, information, and insights of district officials and 20 such stories were shortlisted. Then, a template for documentation of best practice and a checklist of information to be collected during the visits to these success stories was prepared.

Most of the success stories were visited by PriMove representatives for documentation. During the assessment, firstly, an introductory meeting was conducted with the district officials to discuss their views and vision. Then, a visit was made to the villages where discussions were done with the GP stakeholders (Gramsevak, Sarpanch, GP members, VWSC members, Jalsurakshak/water person, SHG members, youth group members, villagers, etc.) regarding the success story. Various records and documentation were reviewed to understand the administrative processes. Photographs of the good practice components and quotes of the GP stakeholders were taken, wherever possible, to support the documentation. Some of the success stories were compiled based on initiatives taken by district officials in Kolhapur and Aurangabad during the assignment period.

The identified success stories were then documented, which have been presented below.

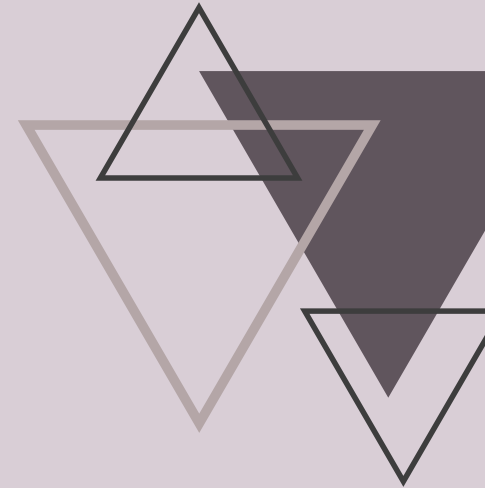




# Maharashtra's first rural Faecal Sludge Treatment Plant (FSTP) under Swachh Bharat Mission (Grameen)-II Nachne GP in Ratnagiri district leads the way

## *Abstract*

One of the key targets under SDGs is Target 6.2 – 'By 2030, achieve access to adequate and equitable sanitation and hygiene for all'. This includes a crucial indicator which tracks the proportion of population that is using safely managed sanitation services. Corresponding to this, the SBM(G) II has made sustainable and safe FSM a critical criteria for rural cleanliness. The guidelines stipulate that districts should plan for FSM activities in all GPs in their jurisdiction and create required infrastructure wherever necessary. Accordingly, Maharashtra plans to install at least one FSTP in every district under the program. Paving the way for others, Ratnagiri district and Nachne GP have become the first to achieve this feat.



## *The Scenario*

State Water and Sanitation Mission (SWSM), Maharashtra has decided to implement construction of at least 1 FSTP in each of the 34 districts in the State. In consonance with the State's plans, CEO and Additional CEO of Ratnagiri Zilla Parishad (ZP) showed great interest in this project decided to bring it on ground with immediate effect.



**DISCUSSIONS AT FSTP SITE**

The district team short-listed a few GPs to implement the project on a pilot basis. Nachne, located 4 km towards west from District headquarters Ratnagiri, was finalised mainly for two important reasons. Firstly, owing to its access to the taluka place, the village is experiencing high growth rate as well as the migrated population in the village is also high.

Secondly, sufficient land was available in the GP that too away from the habitations and with proper road access – an ideal condition for setting up an FSTP.

## Action Taken

The ZP CEO, Ms Indurani Jhakad, and Ad CEO, Mr Parikshit Yadav, wanted to implement a unique, low cost and efficient technology in the GP. For this purpose, the district team decided to visit Kalpetta Municipality in Wayanad, Kerala, where an FSTP had been successfully set up by UNICEF in partnership with PriMove based on the Tiger Bio Filter technology. The technology has been approved by Government of India under Swachh Bharat Kosh. Tiger Bio Filter FSTP combines anaerobic processes with vermifiltration to improve the degree of treatment at a reduced cost, optimum space utilization and negligible operation maintenance cost

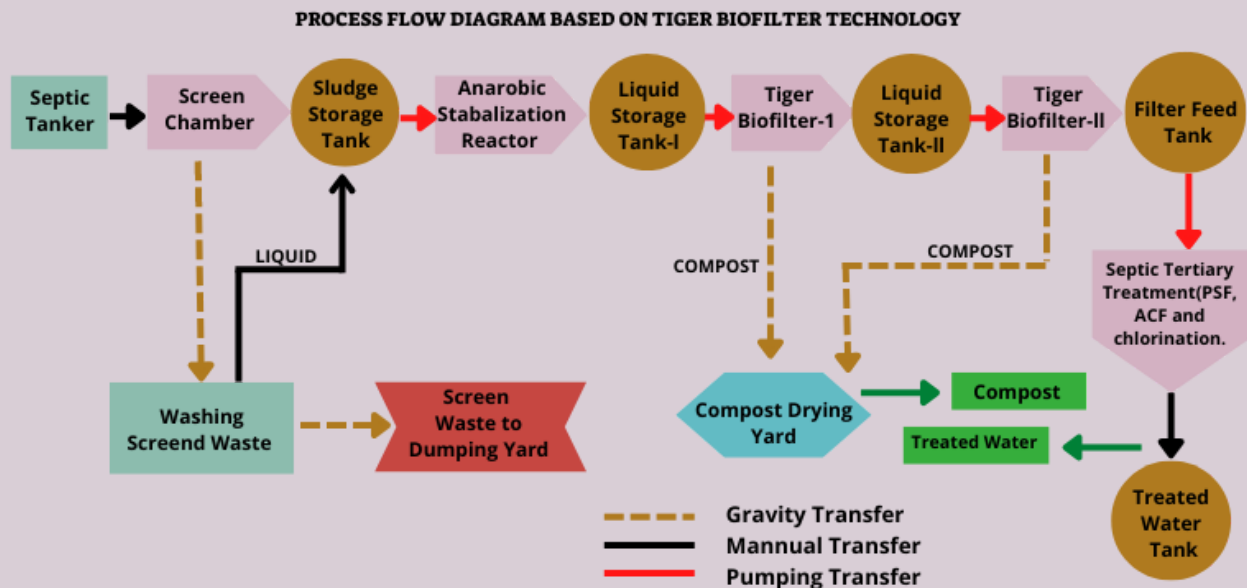
A significant benefit of this technology is that the power consumption during operations is quite low as compared to mechanised technologies - and hence it limits carbon emission to a certain extent. Once the technology was finalised, Ratnagiri ZP prepared a plan for desludging and transport of faecal sludge by clustering 4 nearby villages - Shirgaon, Mirjole, Kuvarbav, Khedshi - with Nachne and preparation of a plan as per guidelines. The District Coordinator arranged a meeting between Sarpanchs and GP members of all the GPs and enlightened them about the process and benefits of installation of this FSTP. After understanding the whole process in detail and the roles and responsibilities, all the GPs agreed to the plan.



DISTRICT LEVEL MEETING TO DISCUSS FSM PLAN

Soon thereafter, a DPR for the FSTP was prepared and sanctioned by Ratnagiri ZP to clear the way for construction of the plant. Mr Rushikesh Bhongle, Sarpanch, Nachne GP, took the lead to clean the land for FSTP and collection of necessary documents from other GPs. The GP members in Nachne took the community in confidence and explained the positive impact which can be created by this FSTP on public health and the environment. Construction and trial run of the plant has been completed and the FSTP has begun its operations in December 2022.

### 10 KLD FECAL SLUDGE TREATMENT PLANT BASED ON TIGER BIOFILTER TECHNOLOGY



Since Ratnagiri is a flood-prone and cyclone-prone district, regular desludging of the septic tanks as a result of this FSTP will help to minimise biological contamination of drinking water sources during such a disaster and reduce ill-effects on public health. Also, the district has constructed retention walls around the plant and made the facility climate resilient. Thus, the project directly sets out to achieve Targets 13.1 and 13.2 of the SDGs on strengthening climate resilience and integrating climate change measures into planning.

## *Brief about TBF technology*

In treatment process the screened faecal sludge is stored into sludge storage tank and then taken to anaerobic stabilization reactor to carry out destruction of volatile organic carbon. This process also reduces pathogens. The sludge is then allowed to pass through Tiger Bio Filter-I (TBF-I). This is designed to separate digested sludge and water. As the sludge passes through TBF-I solids are trapped in filter media. These trapped organics are consumed by Tiger worms. This provides energy for reproduction and living for worms.



VERMICULTURE AT FSTP PLANT

The organics are converted into vermicompost that needs to be harvested periodically from the filter bed. The effluent from TBF-I is then passed through Tiger Bio Filter II, which is designed to handle higher liquid load. This function is similar to TBF-I. As the organics in the influent are digested in the subsequent filter beds, the quality of effluent is enhanced. The effluent collected from TBF-II is more or less clear water. This is further applied to tertiary treatment units such as Pressure Sand Filter (PSF) and Activated Carbon Filter (ACF) in order to polish it. After polishing the water is disinfected using chlorination to make it suitable for human handling, reuse and disposal

## Conclusion

The FSTP has been commissioned recently and the district has proposed a solid business model based for revenue generation by forecasting income from following four streams – sale of treated by-products, tipping fee from households for desludging, a service charge by Ratnagiri Urban Local Body (ULB) and septic tanker charges from desludging operators. This will make sure that the FSTP remains financially sustainable and O&M costs of the plant will be covered properly.

Lastly, compost generated from the treated sludge will help to improve fertility of the soil around the area which is frequently affected by soil erosion during monsoon and/or floods or cyclones; thus helping localise Target 15.3 which aims to restore degraded land and soil.

### REVENUE GENERATION DETAILS

#### A. PRODUCT SELLING

Sr.no	DISCRIPTION	QTY	UNIT	RATE	unit	AMOUNT
1.	VERMICOMPOST	10	KG	5.00	Rs/KG	50.00
2.	TREATED WATER	10	KL	5.00	Rs/KL	50.00
<b>Total Per Day</b>						<b>100.00</b>
<b>Total Per Month</b>						<b>3000.00</b>
<b>Total Per Year(at 300 operating days)</b>						<b>30,000.00</b>

#### B. TIPPING FEE

Sr.no	DISCRIPTION	QTY	UNIT	RATE	unit	AMOUNT
1.	Per Trip:1000-1500 liter capacity (1trip=1 house)	7	Trip/Day	1,000.00	Rs/trip	7,000.00
<b>Total Per Day</b>						<b>7,000.00</b>
<b>Total Per Year(at 300 operating days)</b>						<b>2,100,000.00</b>

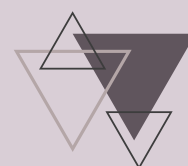
#### C. Tax by ULB

Sr.no	DISCRIPTION	QTY	UNIT	RATE	unit	AMOUNT
1.	Households	13482	nos..	50.00	Rs/HH	674,100.00
<b>Total Per Year(at 300 operating days)</b>						<b>674,100.00</b>

#### D. SEPTIC TANKER CHARGES

Sr.no	DISCRIPTION	QTY	UNIT	RATE	unit	AMOUNT
1.	Per Trip:1000-1500 liter capacity (7trip*300 days)	2100	Trips	900.00	Rs/trip	1,890,000.00
<b>Total Per Year</b>						<b>1,890,000.00</b>

Furthering the cause of localisation of SDGs and by fast tracking the preparation, approval and execution of the DPR for setting up the FSTP, Ratnagiri and Nachne are have set the tone right for rest of the districts and GPs to follow suit.

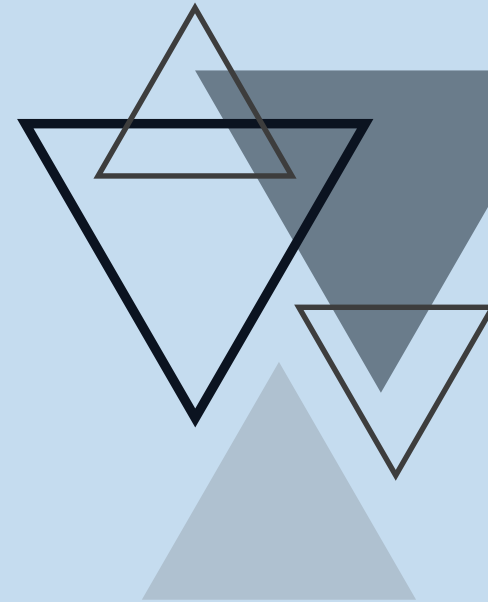


# Establishing Sustainable Sanitation Services –

## Case Study of Siregaonbandh GP, Gondia, Maharashtra.

### *Abstract*

Launch of Swachh Bharat Mission program has helped to create a revolutionary change in the sanitation sector, especially for rural India. Through SBM(G) many GPs have achieved effective solid and liquid waste management. Out of those few GPs, Siregaonbandh from Gondia district stands as a role model due to its efficacious and functional SLWM arrangements in spite of being located in a remote and challenging area.



CSC- SIREGAONBANDH

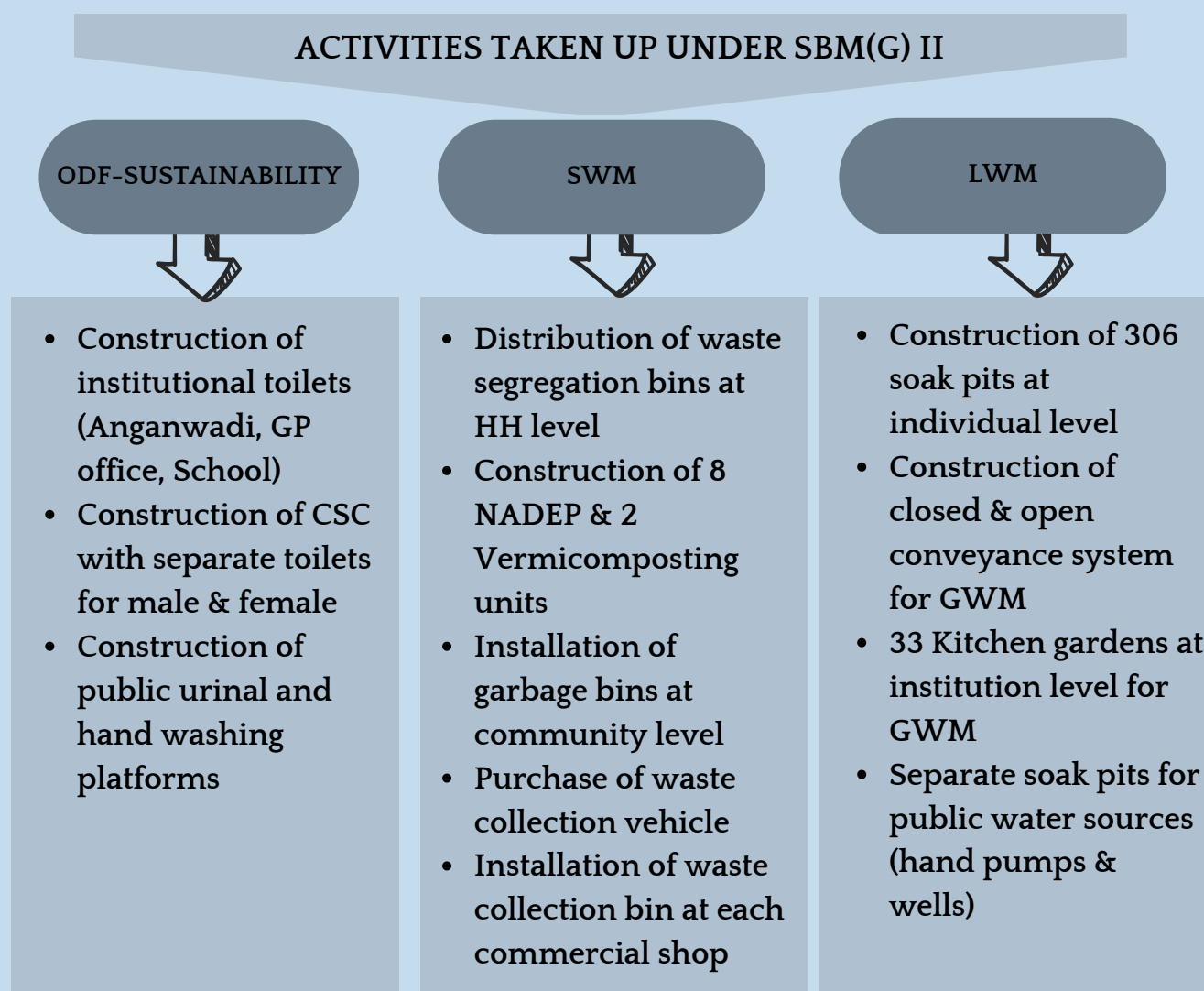
### *The Scenario*

Siregaonbandh is located in Gondia district and has a total population of 1696 individuals. Inspired by “Rashtrasant Tukdoji Maharaj” & “Sant Gadage Baba” the GP members desired universal access to sanitation in their village. “Sant Gadagebeba Abhiyan” provided them an opportunity to take a step towards achieving their desired goal. Implementation of “Sant Gadagebeba Abhiyan” began with a vision of improved individual and community level sanitation through people’s participation. Through this mission, basic sanitation facilities were established which led the foundation for transformation of the village through delivery of sustainable sanitation services. Later, GP focused on implementation of SBM to establish required sanitation services with proper O&M. Along with SBM, implementation of JJM ensured adequate quantity of water with prescribed quality.

## Action Taken

To increase ownership of villagers, building their confidence and ensuring community participation was a starting point. For this, common interest of all villagers was captured through organization of a Gramsabha for creating sustainable sanitation facilities; a Gram Sabha was organized to finalize the strategy and process of implementation of sanitation facilities. The GP created a WhatsApp group to mobilize and sensitize the community for implementation of proposed works. Siregaon also developed its own website and all the completed activities/works were updated regularly on the website. All activities implemented in the GP focused on ownership creation amongst villagers about the facilities.

Following SLWM related activities were taken up in the GP under SBM(G) II-



Siregaonbandh is also championing the cause of localization of SGDs. Target 6.2 encourages governments to achieve access to adequate and equitable sanitation and hygiene for all by 'paying special attention to the needs of women and girls and those in vulnerable situations'. To cater to women's and adolescent girls' needs regarding menstrual waste management; the GP installed a sanitary pad disposal system in village school.

The GP has also started ecotourism at the village pond and generates per month income of 8000/- which is used for O&M of SLWM facilities. This has contributed towards affordability of the facilities created.

## Conclusion

Effective implementation of SBM(G) II has helped the GP to provide sustainable sanitation services in a comprehensive manner. Community participation for every work has ensured that every stakeholder in the village is involved in decision making process to work towards achieving their needs in a participative manner.

“

### *Awards Achieved*

- 1.Nirmal Gram Puraskar
- 2.Sant Gadagebaba Gram Swachata Abhiyan (Block level 1st rank)
- 3.Smart Village Award (District level 1st rank)

”

For revenue generation, manure produced from NADEP & Vermicomposting is sold at a price of Rs 6 /Kg making an annual income of approximately Rs. 6000. Siregaonbandh is able to collect 100% sanitation taxes from last 3 years due to enhanced quality of services. Regular cleaning and maintenance of created infrastructures has helped to sustain the achieved status of total sanitation.



VERMICOMPOSTING BEDS IN GP



Looking at the road ahead, the GP has planned to increase the income from manure selling. Special focus will be given to improve ecotourism for generation of more revenue which can contribute towards financial sustainability of the village. Intensive focus on activities for proper O&M is now being given to make sure that facilities are functioning in a proper way. Siregaonbandh GP demonstrates how determined GP and community can trigger development despite being located in a remote and challenging area.

# Creation of enabling environment for O&M management of water supply at GP level – Kolhapur district takes charge

## *Abstract*

Diligent operation and maintenance (O&M) of in-village water supply infrastructure is crucial for the scheme to remain functional throughout its design period. As the Gram Panchayat (GP) level institutions shoulder this responsibility, it is necessary for the GP functionaries to understand the technical, financial and institutional aspects of O&M for day-to-day management. The district plays an important role to capacitate the GPs to function as 'utilities' to achieve the goal of universal access to sustainable drinking water services.



VISIT TO WTP AT SHINGNAPUR GP

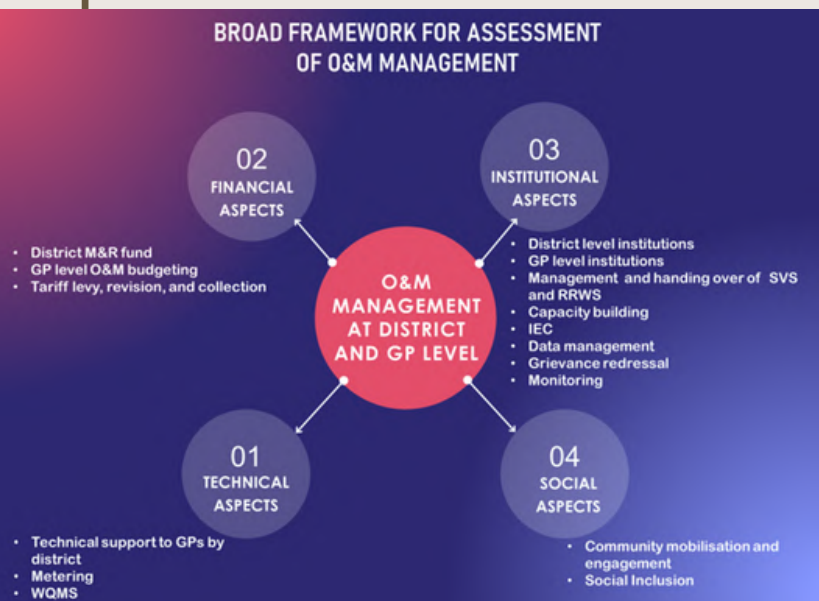
Kolhapur Zilla Parishad has demonstrated this by creation of an enabling ecosystem for O&M management of water supply schemes by GPs. The district has taken concrete steps towards institutionalisation of professional and prudent management of rural water supply infrastructure, dissemination of key information and monitoring of GP level activities.

## *The Scenario*

Kolhapur district has 1,025 GPs and around 7, 14,670 households. The current rural population of the district is approximately 31, 56,467[1] and it is divided into 12 blocks. There are total 1,058 single village schemes in the district, out of which almost 80% are based on surface water sources. Under JJM, the district has provided FHTCs to 81.79% households[2] and is one of the front runners in Maharashtra to achieve the goal of 100% FHTCs.



With many water supply schemes being proposed and/or augmented under JJM, Dy. CEO (WATSAN) and RWS Division of Kolhapur realised that there is an urgent need to work towards efficient O&M management in the GPs.



New infrastructure created under JJM requires appropriate technical management and financial management; both of which require capable institutions. As a first step in this direction, the district administration, in partnership with UNICEF and PriMove, decided to conduct a rapid assessment to understand the status, processes and ground needs for at GP and district level.

## Action Taken

Firstly, a broad framework for the study was developed to encapsulate various components of O&M management properly. After that, PriMove representatives conducted interactions with key district level stakeholder like Dy CEO (WATSAN), RWS engineers, DWSM experts, Financial Officer, etc. During the visit, Dy. CEO (WATSAN), Ms Priyadarshini More, gave some vital insights about the existing challenges with respect to O&M management. A rapid assessment of current status O&M and its management was conducted in 10 sample GPs by PriMove where interactions were done with Sarpanch, Gram Sevak and Jalsurakshaks, secondary data on profile of water supply schemes and technical, financial and institutional arrangements at GP was collected. The data was then compiled, analysed and a short report was developed by UNICEF and PriMove on the same. After obtaining inputs from the district, the report was finalised.



DISCUSSION WITH PD, JJM, KOLHAPUR ZP

The report brought some key points to light such as need for institution strengthening so as to bridge gaps in quality of participation of PRIs in O&M, high electricity bills of GPs leading to financial strain, need for scientific tariff setting and transparent O&M budgeting, immediate requirement to adopt metering to monitor water-use, etc.

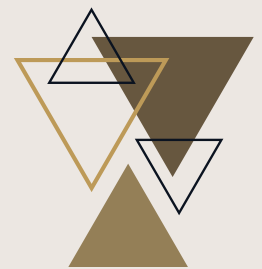


Leaving no stone unturned, the district immediately sought to institutionalise the recommendations in the report as quickly as possible. On 6th Oct 2022, a meeting of the District Water Management Committee was held by CEO, ZP Kolhapur, in presence of PD, JJM, Dy. CEO (Panchayat), Executive Engineer, RWS officials, and other dept. heads to discuss the current state of things under rural water supply.

A discussion took place on the key findings of this assessment wherein the CEO urged all the Dy. Engineers to follow through on those recommendations, while the Dy. CEO (Panchayat) suggested providing incentives to GPs who adopt 100% metering in their jurisdiction. Going a step ahead, CEO, Mr Sanjay Singh Chavan, issued a letter to all the Block Development Officers to ensure that appropriate action is taken on the recommendations under the assessment and asked them to submit a report on action taken. The district level officials also made efforts to ensure that the recommendations are conveyed to the GPs and have assigned responsibilities to provide technical support wherever and whenever required.



MEETING OF DISTRICT WATER MANAGEMENT COMMITTEE



## *Conclusion*

The pro-activeness and initiative shown by Kolhapur is commendable. This highlights the fact that the district serves as a vital cog in enabling GPs to function as utilities through handholding, technical assistance and by bridging the resource gap. Successful implementation of this initiative can help Kolhapur and its villages take a concrete step towards supporting and strengthening the participation of local communities in improving water management as prescribed in Target 6.B of the SDGs.

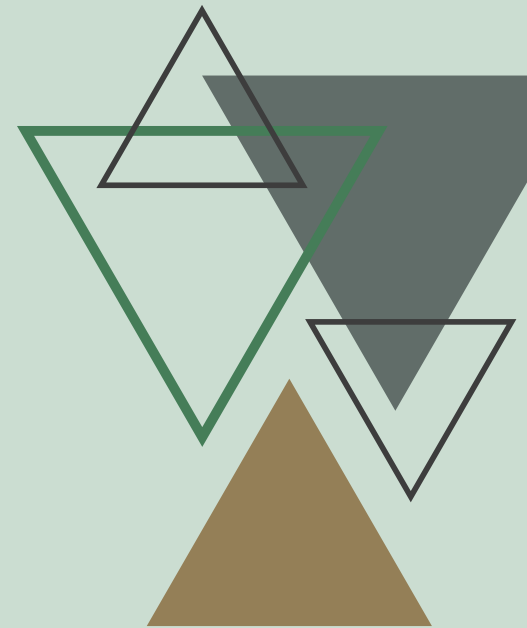
# Staying true to its rich historic heritage; Kundal GP from Sangli district showcases effective waste water treatment using Soil Bio-Technology

## *Abstract*

Kundal village sets an example of efficient O&M of the wastewater treatment system which can lead to increased availability of water (through reuse of treated water), better sanitation and cleanliness in the village and overall healthy surroundings. By substantially increasing recycling of wastewater and its safe reuse, Kundal has taken a big step in localisation of Goal number 6 of the SDGs.



STP AT KUNDAL GP



## *The Scenario*

Kundal village is located in Palus tehsil of Sangli district in Maharashtra, India. It has a population of 18,287 residing in 3,756 households. Kundal is also a place of historic importance. Its ancient name was Koundinyapuro which was the capital of the Chalukyas.

Many yogis and sadhus have attained salvation in Kundal. It has also been home to freedom fighters and has contributed to industrial and educational and social development in post-independence period. The village, staying true to its rich heritage, has continuously strived to achieve effective water supply, sanitation and cleanliness in recent past. However the issue of managing wastewater was persistent throughout.



PUMP-HOUSE NEAR STP

The waste water from the village either got logged in open areas or flowed through open drains, further discharging untreated into the river. The GP was searching for solutions, when in 2014 Maharashtra Jeevan Pradhikaran (MJP) approached the GP for setting up of a waste water treatment plant under NABARD funding. The GP accepted the proposal and also agreed to look after the O&M of the plant after its handing over.

### Waste water Treatment plant- Kundal village

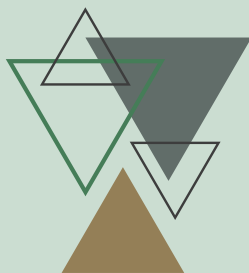
**Technology:** Soil bio Technology  
**Daily fresh water supply in village:** 746 KLD  
**Inflow rate of Waste water** = 0.47 MLD  
**Capacity of treatment unit** = 0.5 MLD  
**Estimated Cost of treatment Plant:** 3.28 Cr  
**Treatment unit components:** Screening-  
 pumping/lifting-Filtration through planted gravel filter  
 in Bio mound - Collection tank-Pumping for reuse

### Action Taken

A waste water treatment system was set up in Kundal which collects the waste water from all households in the GP, treats it using Soil Bio-Technology (SBT) and the treated water is reused for agriculture. The plant was completed in November 2019 and after 2 years of trial run period by the contractor; it has been handed over to the GP for O&M.

### The entire wastewater management system consists of 3 components-

- Collection of wastewater - construction of new drainages, repairing existing drainages, covering the existing drainages and fixing screens
- Conveyance of the wastewater through 300 mm RCC pipes
- Wastewater treatment plant of 500KLD based on SBT



STP AT KUNDAL GP

## Conclusion

The plant is now able to achieve sustained results in terms of removal efficiency; TSS (>85%), BOD (>85%) & COD (>85%). The treated water is odour / colour free and capable of meeting the CPCB standards as well as new NGT norms. The GP is now engaged in mobilizing community for reusing the treated water for agriculture. This effort will help to ensure reduced usage of freshwater in areas practicing water-intensive agriculture like Sangli, especially during lower than average rainfall seasons. The GP also proposes to set up an O&M cell for the plant through 15th Finance Commission Funds.

### ANALYSIS OF SAMPLES COLLECTED ON 21/12/2019

Parameter	Unit	Raw Water	Treated water	MPCB norm
PH	-	7.24	7.32	5.5-9
TSS	Mg/L	50	<10	<100
COD	Mg/L	125.95	<10	<250
BOD	Mg/L	39.7	<5	<100

The villagers are happy because of improved cleanliness in the village and also the health conditions have improved owing to no water logging, closed drains and wastewater treatment. Kundal has successfully created reliable infrastructure which can safely manage the greywater.



L-R:raw sewage sample; treated water sample

“

### *Soil Bio-Technology*

SBT® is a novel technology which uses soil ecology for water renovation wherein respiration, mineral weathering and photosynthesis are synergized in a soil type formulated media environment to bring about water purification to desired levels. Evergreen ambience, absence of moving parts, gardening-like skills for operation, etc. are some of the unique features.

”

# Comprehensive Solid Liquid Waste Management\_

## in Sitepar village, Bhandara

### *Abstract*

Sitepar village demonstrates how triggered community and motivated GP together can transform their village into a village having safe and secure water supply, efficient arrangements for solid and liquid waste management and achieving overall visual cleanliness in the village. As a result of this transformation, Sitepar is progressing towards becoming a 'Water sufficient' and 'Clean and Green' village by localisation of SDGs at the ground level.

### *The Scenario*

Sitepar is a small village in Mohadi tehsil of Bhandara district located 20km away from the district headquarters. Its population is 675 and total households in the village are 147. Before 2016, the village had minimalistic facilities for water supply and sanitation. The entire village was dependent on point sources (hand pump and wells), many families did not have toilets and open defecation was a common scenario, there was no system for collection and management of solid waste and waste was being dumped in open and there was no drainage system for greywater management and greywater was discharged openly. The villagers faced health issues due to these unhealthy conditions.

The GP members understood the urgent need for setting up water supply and sanitation activities in the village, but did not have any guidance and direction for mobilizing the community for it and also the process for setting up these facilities. In 2016, the GP members visited Mozri village of Amravati for setting up a statue of Rashtsant Tukdoji Maharaj in the GP. The GP found an opportunity to mobilize the community. A 6 day long program for inauguration of statue was organized during which extensive IEC activities on sanitation like Gramsafai campaigns, student camps, street plays, etc. were organized by the GP and importance of sanitation and community participation was highlighted.



GRAMPANCHAYAT,SITEPAR



# Action Taken

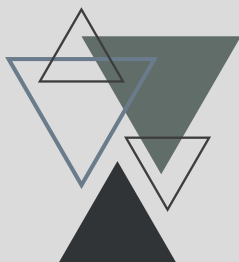
The community was triggered for sanitation and a village meeting was organized immediately after the inauguration program to discuss next steps for sanitation. The community pledged to work for sanitation, cleanliness and restoring the environment. A tree plantation activity began immediately, where every household planted at least one tree outside their house on roadside. This was followed by carefully planned and monitored activities for ODF, sustaining ODF status, solid waste management, liquid waste management, maintaining overall cleanliness, etc.

## ODF and ODF sustainability-

As a first step after towards sanitation, construction and use of toilets was promoted in the village. The households which did not have a toilet decided to construct one. A CSC with assured water supply was constructed by GP for floating population, migrants and labours. In addition, community urinal having separate units for male/female with running water supply and hand washing facility were also constructed. The village was declared ODF in 2017. Ward members, villagers and students regularly monitor use of toilets to sustain the ODF status.



COMMUNITY SANITARY COMPLEXES

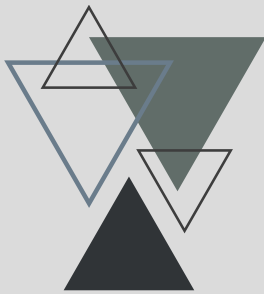


## Water Supply-

A water supply scheme was taken up under JJM which provided tap connections along with water meters to 118 households and remaining 29 households have their own sources. Water is supplied twice a day. An R.O. Water filter is installed near GP and treated water is provided to floating population, Gram Panchayat staff & labour. O&M of this RO unit is done through GP fund. For source sustainability, Rain water harvesting work is done in Anganwadi & school building. 2 community Hand wash units are constructed by GP through GP fund. Water tax of Rs. 900/-/HH/Annum is levied and all households pay the tax regularly and timely resulting into 100% recovery of water tax.



HOUSEHOLD TAP CONNECTIONS AND PUBLIC TAPS





## Solid waste management-

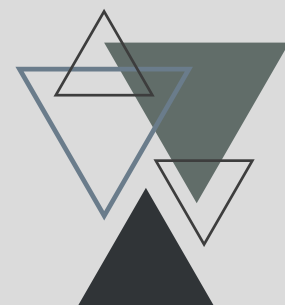
The GP has installed 14 community bins through 15th Finance Commission Funds. It is made compulsory for each household and each shop to segregate dry and wet waste. Waste is collected from each household and shop every week. Total 32 households have their own compost pits for biodegradable waste and the manure from the pit is used for kitchen gardens.



The waste collected from households is brought to the waste management shed having 9 Vermi compost units for biodegradable waste & one chamber of storing plastic waste. This unit is well maintained. Sanitation charge of 50Rs./HH/Annum is levied by the GP and its recovery rate is 100%. 14 NADEP & pit compost units have been installed by the GP at public places. Some of these are handed over to households for O&M. IEC activities for SLWM like wall paintings, boards and slogans have been conducted by the GP.



The responsibility of O&M community composting units, RRC & community plantation is given to Rojgar sahayyak and management is done through MGNREGA fund. An annual contract is given to 2 persons for collection of waste, cleaning of CSC & cleaning of market place. These persons have permission to collect charges from shops in the market/ weekly market (ranging from Rs. 5/- to Rs.20/- as per size of shop) and the entire O&M activities are done through these funds.



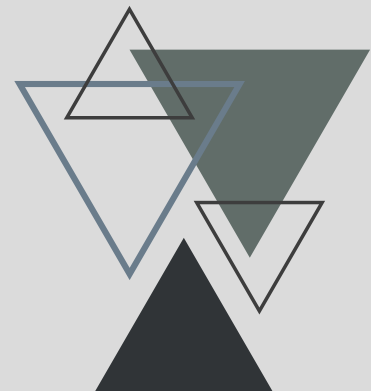
ARRANGEMENTS FOR WASTE SEGREGATION, COLLECTION,  
TRANSPORTATION AND TREATMENT

## Plastic waste-

For collection of plastic waste, an innovative idea is used by the GP. The school children are motivated to collect plastic and fill the wrappers and other plastics in to a plastic bottle. The students get Rs 10 for every bottle filled with plastic. These bottles are used for beautification/ decorative purposes. Through overall solid waste management, the village has engaged in environmentally sound management of all wastes throughout their life cycle, in line with Target 12.4 of the SDGs.



PLASTIC WASTE COLLECTION DRIVE



## Menstrual Health

### Management -

For MHM, the GP has installed sanitary napkin vending machine in GP from where adolescent girls & women can purchase napkins for Rs.5/- each. An incinerator has been installed near Anganwadi where used sanitary napkins from village are disposed. The GP earns Rs. 70-80 per month by selling sanitary napkins (Profit of Rs. 2/- from each sanitary napkin).



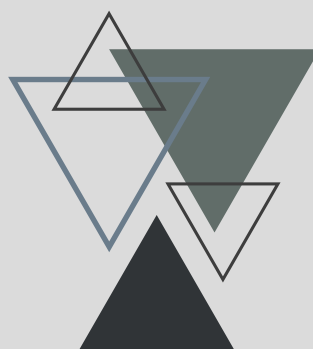
SANITARY PAD VENDING MACHINE

## Greywater management-

Out of the total households in the village, 72 have kitchen gardens for management of greywater. Remaining 75 households are connected to covered drains constructed under MGNREGA in 2016-17. 27 plantations are done over the drains which have resulted in partial absorption of waste water. 2 community Soak pits have been constructed through MGNREGA at the end of 2 drainage outfalls. 3 Soak pits have also been taken through SBM funds for managing wastewater around hand pumps. Scheduled cleaning of drainages is done twice a year. GP fund is being used for drainage cleaning.



COMMUNITY LEVEL GREY WATER MANAGEMENT INTERVENTIONS



## *Conclusion*

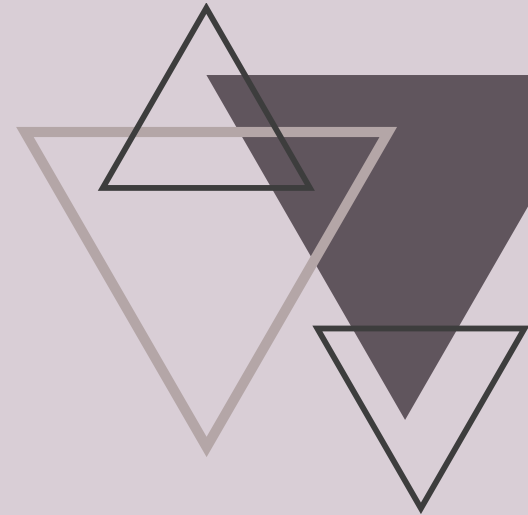
Sitepar GP has demonstrated through its practices that sustainable management and efficient use of natural resources, prescribed under Target 12.2 of the SDGs, can be done in a participative and efficient manner. This is the way Sitepar village has showcased how triggered community and motivated GP together can transform a village into a Sujal and Swachh village in an astoundingly short period.

## Bucket test to ensure equitable supply of water –

### A simple test in Mahadikwadi is upscaled by Kolhapur district

#### *Abstract*

Jal Jeevan Mission (JJM) is envisioned to provide safe, adequate with regular basis drinking water through Functional Household Tap Connections (FHTC) to all households. But even after successful completion of piped water supply schemes, households at the tail end of the distribution network in many GPs are victim of low pressure of water supply. Many times, these GPs are unaware about how to resolve this issue and take adequate measures so that everyone gets enough water. That is where the bucket test comes to the rescue; as it did in Mahadikwadi GP in Kolhapur



#### *The Scenario*

Mahadikwadi village is located in Panhala Block of Kolhapur district in Maharashtra, India. It is situated 40 km away from sub-district headquarter Panhala and 20 km away from district headquarter Kolhapur. Mahadikwadi has already been declared as a Har Ghar Jal Gram Panchayat under JJM. Although the GP has been receiving continuous and regular supply of drinking water, the people in Mahadikwadi were facing issues regarding unequal pressure of water supply.

Realising this issue the Sarpanch, Mr Pandurang Mahadik, contacted the representatives of the ISA working in the village. In a quick response, representatives from PriMove, the ISA and HRD consultant at the district level Mr Vijay Patil, visited the GP in order to identify the problem and provide a solution



VILLAGERS PERFORMING  
BUCKET TEST

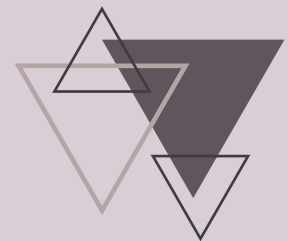
## Action Taken

After understanding the issue, the GP members were advised to conduct a bucket test to check the pressure of water being supplied in households. Firstly, importance and need of conducting the test were explained to the GP members. After that the steps to conduct bucket test were explained and an actual test was conducted in the village. Upon identifying the locations where the pressure was uneven, the GP was advised to plan for the required time that water supply needs to be turned on so that all the households get equal supply of water.

This paved way for the GP to achieve universal and equitable access to safe and affordable drinking water for all, in line with Target 6.1, in a much more real sense. This has also resulted in equal opportunities and reduced inequalities related to water supply facilities, in relevance to Target 10.3 of SDGs.



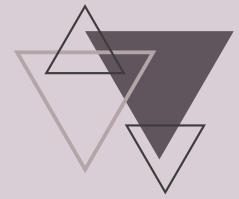
SURVEY OF WSS NI MAHADIKWADI DURING VISIT



### *How to conduct a bucket test:*

1. Take a bucket of 10 L capacity and place it under a tap connection.
2. Now turn on the tap at full force and allow the bucket to fill up to its entire capacity.
3. Calculate the time required for the bucket to fill completely. Conduct this test at a minimum of three locations – in a household at the start of the distribution network, in a household located in the middle of the distribution network, and in a household at the tail end of the distribution network.
4. Based on the timings, calculate the water pressure at the three different locations to identify the points where it is high and where it is low.

Mr Sudhir Patil, representative of the ISA, captured the entire process through a video and shared it on the district WhatsApp group. Upon seeing the simple yet critical test, Project Director (PD, JJM), Ms Priyadarshini More, realised the importance of upscaling this activity and shared the video at State level. SWSM, Maharashtra appreciated the efforts taken by the district and the ISA in Mahadikwadi and encouraged the DWSM cell to document the entire process for cross-learning. Without wasting any time, the RWS Dept. circulated the video and a short write up on how to conduct the bucket test with all ISAs in the district and directed them to conduct such tests in all the villages where work under JJM has been completed across Kolhapur.



## *Conclusion*

The small yet successful campaign conducted by Kolhapur Zilla Parishad has helped to ensure equitable distribution of water across majority of the GPs. Upscaling of bucket test across the entire district has created a wonderful opportunity for cross learning in the district.

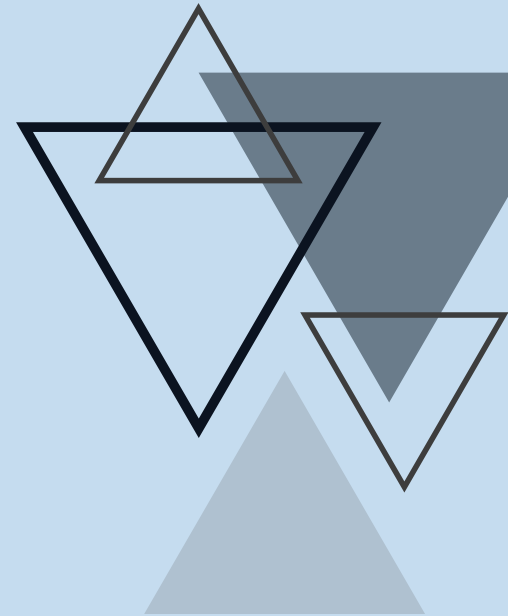
# Sangli District Pioneers In Strategic FSM and PWM Planning And Execution

## *Abstract*

Sangli district is at the forefront in district level planning and execution of Faecal Sludge Management and Plastic Waste Management by preparing district FSM plan, initiating FSM execution in 5 pilot clusters, developing DPRs for villages to be addressed through trenching and preparation of DPRs for 10 block level PWM units.



DISCUSSIONS ABOUT PWM PLAN WITH  
DISTRICT OFFICIALS



## *The Scenario*

Swachh Bharat Mission Grameen Phase II aims to sustain the ODF status of villages and improve rural cleanliness through solid and liquid waste management activities. Faecal Sludge Management (FSM) and Plastic Waste Management (PWM) are two critical components of the program; which are to be managed in a centralized manner by the districts.

To ensure safe and sustainable management of Fecal Sludge and plastics, the districts need to develop appropriate systems at district / cluster level for collection, transportation, treatment and disposal of faecal sludge and plastic waste in a safe manner. Almost all districts are currently in the process of developing strategies and mobilizing resources as they inch towards achieving the objectives for FSM and PWM under SBM(G) II. Meanwhile, Sangli district has taken the lead as it becomes the pioneer in district level planning and execution of FSM and PWM.

## Action Taken

The process began when the State issued a letter to all districts instructing them to prepare FSM and PWM plans and initiate their execution as soon as possible. Sangli district promptly decided to take action on this and initiated the process for selecting agencies for developing FSM plans and PWM DPRs.

The agencies made detailed presentations on the proposed process, tentative contents and timeline for plan preparation and accordingly VRS Ecotech was selected for developing district level FSM plan and Star United Associates was selected for preparing 10 PWM DPRs (one for each block).

Both agencies firstly developed templates for data collection which were circulated to the blocks and required data was collected from each GP within 10 days. The District FSM plan and Block PWM plans were developed by the respective agencies, which were reviewed, revised and approved. The CEO, Sangli ZP, shared the FSM plan with SWSM. In addition to this, DPRs were prepared for the 32 villages with population less than 500 which were considered for deep row entrenchment.



DISCUSSIONS ABOUT FSM PLAN WITH DISTRICT OFFICIALS

## BRIEF ABOUT THE DISTRICT FSM PLAN:

Firstly, the document gives brief about the background of FSM, need of FSM plan and the methodology adopted for development of the plan. It also presents the status of Sangli district w.r.t to spatial spread of population and toilet typologies, locations of existing STPs/FSTP, etc. The FSM plan includes establishment / strengthening of desludging and transport facilities, formulation of clusters and indicative clustering for the district. The plan also presents the monitoring activities at district, block and village level and option selection process required for planning of treatment options in FSM

The plan quantifies the amount of Faecal Sludge to be desludged. It then estimates the block-wise requirement of desludging and transport facilities. With respect to the quantification of Fecal Sludge to be desludged and transportation distance to be covered, the plan proposes 19 tentative clusters. The tentative capacities of each FSTP plant are also calculated and technology options for FSM in the district have been indicated. Map 1 presents the map of proposed clusters for FSM.





## BRIEF ABOUT THE PWM DPRS:

Separate PWM DPRs were prepared for each block of Sangli district. Each DPR presents – estimates of daily plastic waste collected from each GP in the block, infrastructure requirements, site details, specifications of the machines to be installed at the unit, manpower requirements, cost of the unit, forward linkages, etc.

## Conclusion

Execution of the FSM plan has already begun in the district. The district has identified 5 clusters for piloting the FSTP construction. These clusters have exposure risk to floods and have high number of big GPs. In these clusters, the district proposes to construct FSTPs based on Tiger Bio-filter technology. The execution work has been given to VRS Ecotech and execution is in progress.

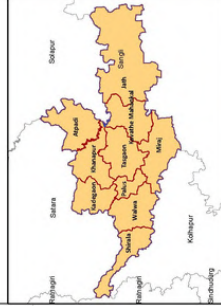
Through this comprehensive planning and its execution, Sangli district has taken concrete steps towards developing qualitative, reliable, sustainable and resilient infrastructure with a focus on affordable and equitable access for all. This can help the district administration in localization of goals 6 and 9 under the SDGs in an effective manner.

Sangli district has indeed shown great initiative in translating the FSM and PWM strategy on ground in a swift manner. Soon, it might become the first district in Maharashtra to have maximum FSTPs and PWM units in a single district; which is a commendable achievement.



# MAP 1: PROPOSED CLUSTERS FOR FSM IN SANGLI

## FSM CLUSTER MAP FOR SANGALI DISTRICT

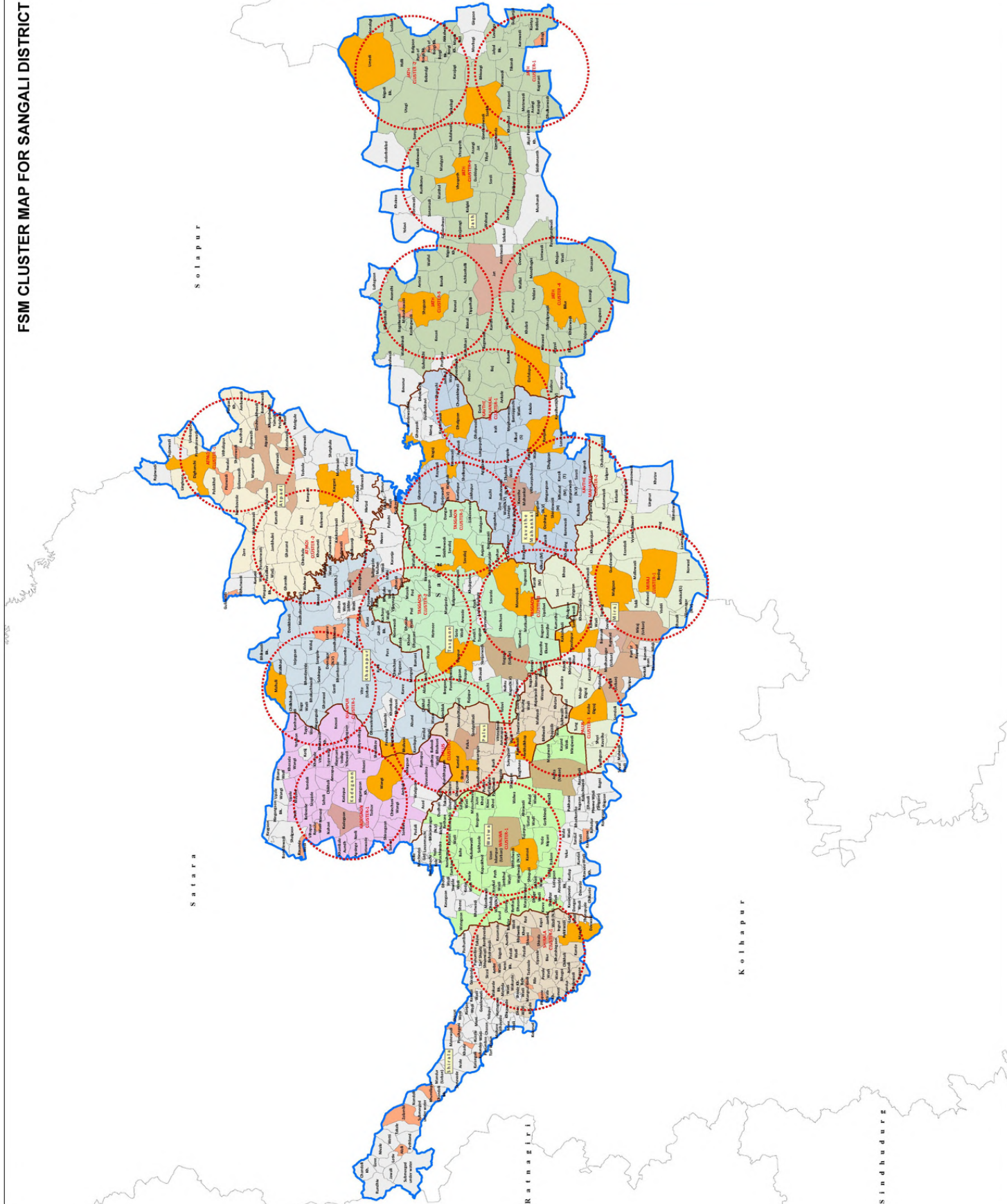


### LEGEND

- SANGALI DISTRICT BOUNDARY
- BUFFER-10 KM
- HIGHEST POPULATION VILLAGE
- TEHSIL BOUNDARY
- VILLAGE BOUNDARY
- MUNICIPAL CORPORATION

### TEHSILWISE CLUSTER

- ADPAI TEHSIL CLUSTER (NO. OF CLUSTER-2)
- JATH TEHSIL CLUSTER (NO. OF CLUSTER-2)
- KADGAONINO OF CLUSTER-1
- KATHE,MAHANKING OF CLUSTER-2
- KHANAPUR (NO. OF CLUSTER-1)
- MIRAJ (NO. OF CLUSTER-1)
- PALLAS (NO. OF CLUSTER-2)
- SHIRALA (NO. OF CLUSTER-1)
- TASELON (NO. OF CLUSTER-3)
- WALVA (NO. OF CLUSTER-1)
- < 500 (CENSUS POPULATION 2011)



# Water Scarcity to Water Sufficiency- Case Study of Dawatpur Gram Panchayat, Latur

## *Abstract*

Dawatpur GP of Ausa Block, Latur showcases how mobilized community can lead to phenomenal changes in the water supply conditions; turning it into a water sufficient village through localisation of specific targets under SDG 6 – Clean water and sanitation and SDG 15 – Life on land. This noble effort taken by GP has also paved way to improve overall socioeconomic conditions of women in relation to Target 5.1 of SDGs by reducing their drudgery.



## *The Scenario*

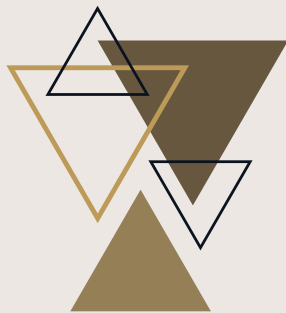
Latur district of Maharashtra state is gripped with water scarcity with many Gram Panchayats struggling to meet even their daily water needs. The district also had to import water through train a few years ago! Some GPs in the district are enriched with water sources but the sources are either too far off or are contaminated. Dawatpur GP of Ausa Block, Latur too faced the challenges of water scarcity which further intensified during summer months. The village water supply system was dysfunctional due to inadequate maintenance and repairs. Village women fetched water for both domestic and drinking purpose from a source located more than 2 km away. Almost 3-4 hours were spent every day just to fetch water.



WATER STORAGE TANK

## Action Taken

Agitated by the situation, the villagers decided to take action. During this time, they came across the Satyamev Jayate Water cup competition. The competition was an annual 45-day competition hosted by Pani Foundation, in which thousands of villages in Maharashtra competed to work for soil and water conservation. Dawatpur villagers decided to participate in the competition. After receiving motivational training in watershed management from Paani Foundation, villagers worked with an entrepreneurial zeal to build and repair water conservation structures, raise money for machine work, test and treat soil, etc. through 'shramadaan' (voluntary labour).



WATER RESRVIOR IN THE VILLAGE

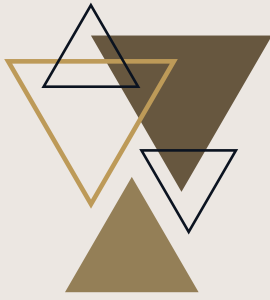
The GP received an award under the competition which boosted the villagers to take up further actions. Villagers were in continuous search of schemes for resolving remaining water challenges. With the help of Jal Jeevan mission implementation, Dawatpur was able to lay foundation for transformation in water services.



### *Activities taken up under JFM:*

1. Formation & Capacity building of VWSC
2. Selection of 5 Women for FTK
3. Formation of 10 water reservoir tanks for storing water
4. Repairing of conveyance system for water supply at HH level
5. Grievance redressal: Raised complaints related to water service are resolved within 15 days
6. Water tariff collection and keeping records





Initially, the GP prepared water budget for understanding the annual amount of water demand and supply, based on which the activities for water safety and security were designed. This has led to better participation of the local community in improving water management of the village, in line with Target 6.B of the SDGs.

Repairing and augmentation of the existing water supply scheme to make it functional was proposed under JJM. Ten water reservoir tanks at different locations of village were installed. The existing distribution system was also repaired and tap connections were provided to each household. The water cup award amount was used for installation of an RO plant at central location of village for drinking water supply. The water coming from outlet of RO was channelized to soak pit constructed at back side of plant. Overall implementation of JJM was done with focus on capacity building of key stakeholders. All the collaborative efforts resulted in sustainable supply of 55 lpcd water to all villagers. The villagers are happy with the service and pay water tax regularly. More than 80% water tariff is collected every year.

## Conclusion

Successful implementation of JJM activities resulted in improved water services in Dawatpur. The current water supply system ensures water quality, regular water supply of 55 LPCD, accessibility of service by every villager and platform for resolving grievances. In this manner, Dawatpur has addressed water scarcity and substantially reduced the number of people suffering from water scarcity effectively, as per Target 6.4 of the SDGs. The story of Dawatpur can serve as an example for others to plan and implement water supply schemes by taking climate risks like variable rainfall into consideration.

Lastly, the enhanced quality of services has helped the GP to collect more revenue leading to effective O&M of the water supply facilities. The villagers also feel a sense of ownership towards the systems and therefore monitor their utilization regularly.

“

*After realizing the water scarcity issue, villagers took combined efforts for participation in water cup competition and implementation of JJM. Community participation helped us to achieve the status of water sufficient village and we are sure that with proper interventions and strategies we will sustain the achieved status*

-Ms. Rekha Chalmale, Gram Sevak, Dawatpur GP, Latur

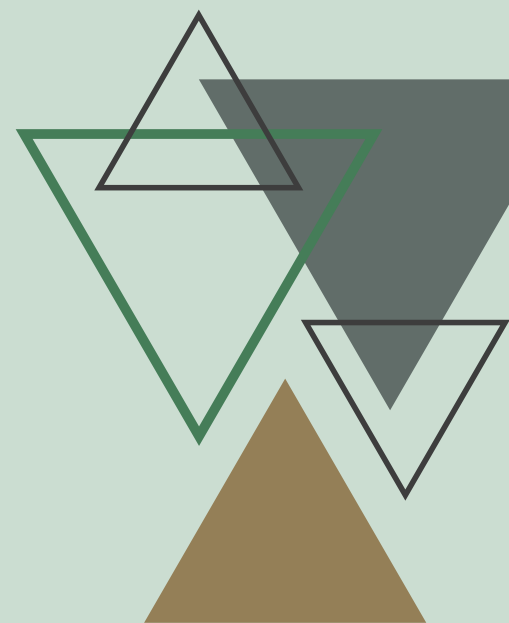
”

# Power of Collaboration: Efficient Plastic Waste Management Through CSR Support in Vasind GP, Thane District



## Abstract

As prescribed in the SBM(G) II guidelines, many GPs are trying to streamline the processes for collection, transportation and treatment of plastic waste. But there are a few obstacles for managing this efficiently like dearth of funds, lack of technical knowledge about the value chain and low awareness. SBM (G) II guidelines rightly focus on convergence of funds from various sources and stakeholders to achieve the status of ODF Plus.



Vasind GP from Thane district has proven that convergence with private sector through CSR can create a hassle free plastic management system with well-established forward linkages.

INDICATIVE IEC BROCHURES

## The Scenario

Vasind GP is a peri-urban area adjoining Mumbai-Nashik highway, with a JSW Steel Plant nearby. Proximity to the highway and presence of industries has led to a huge floating population in the GP. Absence of a system for processing of plastic waste resulted in people dumping plastic openly. Burning of plastic was also a common practice – making the surroundings filthy and unhygienic which affected the health condition of locals.

In order to tackle these challenges, adaptation of appropriate measures and creation of required facilities was need of the hour. GP was struggling for managing funds to create assets and awareness amongst villagers was quite low. The GP approached JSW Foundation with requirement of support to address this issue. It was decided that a robust PWM system would be set up in Vasind through a collaborative effort between the GP, JSW foundation and Mumbai Sustainability Centre.



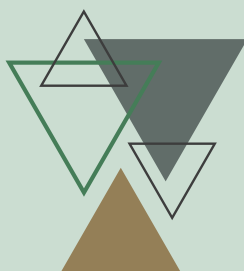
PRACTICE OF OPEN DUMPING

## Action Taken

In order to test the effectiveness of planned activities firstly a pilot initiative was implemented at JSW colony. All employees along with their families carried out a mass plastic collection drive. Further, school-going students from Jindal Vidya Mandir were engaged in awareness generation activities for segregation and channelization of used plastic



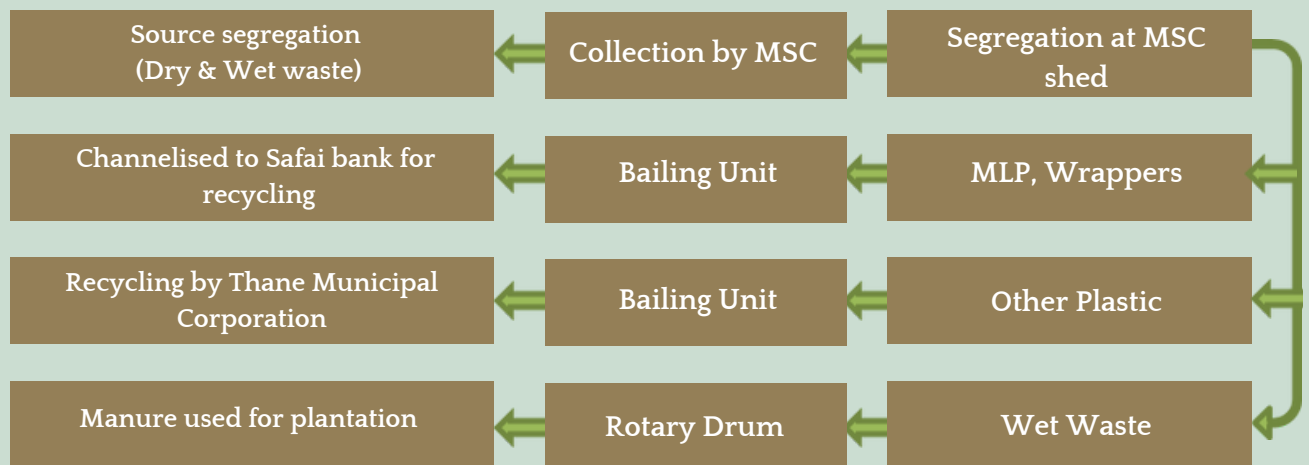
TYPOLOGYWISE SEGREGATION OF DRY WASTE



Soon after, ward wise awareness sessions were organized in the GP with practical demonstrations of segregation. After raising substantial awareness, a ward wise route plan was developed for collection of waste. In total, 4 collection vehicles are used for this purpose and all these vehicles have been purchased through CSR funds.

Responsibility of O&M is done by Mumbai Sustainability Centre (MSC). A community level rotary drum composting unit was also set up to treat biodegradable waste. Setting up these mechanisms has increased reliability of the entire system and ensured that solid waste is managed safely.

The detailed collection mechanism is mentioned in below flowchart:



### Conclusion

The step by step implementation of proposed activities resulted in creation of a sustainable system for entire plastic waste management. More than 2 tons of dry waste, majorly including plastic, is channelized for proper treatment/disposal. This has helped to significantly reduce the release of waste to water and soil and minimized adverse impacts on human health and the environment – progressing towards achievement of Target 12.4 under the SDGs



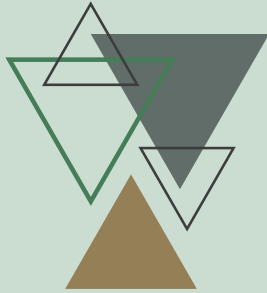
**BAILING UNIT**



**ROTARY DRUM FOR COMPOSTING**

Further, the entire mechanism has led to generation of employment locally for more than 10 people. Due to excellent waste handling, the practice of open dumping has almost been eliminated and the GP is on the verge of achieving visual cleanliness. The manure made from wet waste composting is used as a fertilizer for nurturing growth of plants in and around the GP. As majority of the expenses related to collection mechanism are managed through CSR funds, the GP is able to do plastic waste management at minimal cost. Thane lies in the heavy rainfall region and openly dumped plastic waste can lead to clogging of drains and pipelines during floods. Hence, these interventions will help GP to climate resilient against floods by ensuring continuity in services and minimizing negative impact of waste on surroundings





Daily Waste Collection							
	28.11.22	29.11.22	30.11.22	1.12.22	2.12.22	3.12.22	4.12.22
Noof House Hold	2366	2339	2539	2529	2553	2506	Sunday WO
Noof Shop	110	111	112	112	110	110	0
H.H.D.W.	94	70	81	78	56	60	0
Shop D.W.	60	27	30	31	28	37	0
Total D.W.	154	97	111	109	84	97	0
Total W.W.	1120	1240	1200	1200	1240	1000	0
Total Waste	1274	1337	1311	1309	1324	1097	0

**STRONG RECORD KEEPING**

As a road map for the future, a DPR for clustering of 10 nearby villages for plastic waste management has been submitted to Thane ZP. The district has also planned to set up a block level PWMU soon. The GP plans to continue IEC activities for behaviour change so that a slip back doesn't take place. Rigorous monitoring of the entire process is being done by Vasind as well as JSW Foundation to avoid hiccups. All the collective efforts taken by the stakeholders throw light on benefits of collaboration and coordination which can do wonders for Gram Panchayats and help them achieve the desired goal of becoming ODF Plus

# Self-Mobilised Community Builds Water Quality Management System: An Exemplary Case of Muli GP, Parbhani

## *Abstract*

Muli GP presents a good example of how self-mobilized community can help the GP in building and monitoring effective service delivery, especially, water quality. Improvement in water quality has enabled Muli to achieve Target 6.3 of the SDGs and the village is now on track to become a water sufficient village.



WATER QUALITY TESTING USING FTK KIT

## *The Scenario*

Muli is a Village in Gangakhed Taluka in Parbhani District; located 32 km south of the district headquarters. Total population of the village is 2783 residing in 517 households. A few years ago, the village was characterized by water scarcity, irregular supply and quality issues especially in summer months. A water supply scheme was taken under Jalswarajya in the village based on a public well. However, the overhead tank was inadequate, distribution lines had leakages and with increasing population and increasing demand for water, the scheme could not provide sufficient and timely water to the villagers.

## Action Taken

With increasing intensity of water supply related issues, the villagers started becoming restless and distressed. The GP members began searching for a solution and came across the newly launched Jal Jeevan Mission for augmenting the existing scheme. The GP members applied for the same; and works like digging up a new well, new water tank, distribution line and household tap connections were approved for the village under JJM.

After completion of the scheme, all households are now provided with tap connections. The water supply rate has now increased from 40 to 55 lpcd and every household gets tap water every alternate day. There are 20 lanes in the village and 10 lanes are provided water supply on a single day- 6 lanes in the morning and 4 lanes in the evening. A complaints box is kept in the GP building and complaints are addressed within 4 days.



WATER PERSON OPERATING THE VALVE FOR WATER SUPPLY

After improvement in the water supply service delivery, the villagers got motivated for contributing in this noble cause and decided to take up overall operation monitoring of the scheme, especially water quality monitoring. Today, the villagers themselves monitor whether all lanes in the village get equitable water and remind the water person to switch off water supply after stipulated period.



Latitude: 19.007993  
Longitude: 76.751449  
Elevation: 384.61±14 m  
Accuracy: 1.7 m  
Time: 03-12-2022 17:31  
Note: पाणी तपासणी . गा प.मुळी ता सांगरवडे

Powered by NoteCam

PUBLIC WATER TANK

Five women voluntarily came up for water quality testing, and they conduct water quality tests with help of FTK kit twice a week and share the report with GP. TCL powder is regularly applied to the tank by the water person and OT test is conducted every 4 days. The MPW checks quality of drinking water every month and the report is submitted to the GP. The GP has received green card under water quality surveillance for last 3 years and is due to receive a silver card.

## Conclusion

The villagers are quite satisfied with the service delivery. As a result, the annual water tax collection is 100% for last 2 years.

The GP, in participation with the community, now aspires to provide 24X7 water supply to all households and also wishes to provide solar power heated water to each household for bathing. The GP and the community showcases how a motivated community can support the GP in taking up developmental activities and take the GP on the pathway of progress.

“

*“We voluntarily came up for testing drinking water quality in the village through FTK kit. Because of the testing, villagers have become aware about water quality. Continuous monitoring of quality and relevant actions have improved the quality of water, which has led to better health of the villagers, especially small children.”*

- Ramatai Bhosale, one of the 5 women selected for FTK testing

”

# Together for clean and green village- Success story of Uti (Bk) in Latur district

## *Abstract*

Functionaries and villagers of Utti Bk from Latur District showcase united efforts towards adopting the concept of clean and green village by integrating climate change measures into planning, relevant with Target 13.2 of SDGs and by ensuring the conservation and sustainable use of terrestrial ecosystem, as per Target 15.1.



WASTE COMPOSTING UNIT

## *The Scenario*

Utti is a small village in AUSA block of Latur having population of 2053 residing in 379 households. The village is well endowed with natural resources like abundant water availability being located on the banks of Tavarja River, green surroundings, etc. The famous Jagdamba Devi temple is also located in the village. However, despite the natural bliss, indiscriminant human activities led to unclean surroundings in the village until a few years ago. The community areas in the village were covered with garbage and waste water. Open defecation was a common practice and the green belt was reducing due to cutting of trees for fuel



CLEAN ROAD IN THE VILLAGE

## Action Taken

The newly elected GP body in 2017 led by Sarpanch Mr Bhalchandra Patil took lead to clean the village and motivated the villagers to participate actively. The villagers were hesitant in the beginning but willingly participated later after observing the dedication and perseverance of the GP members

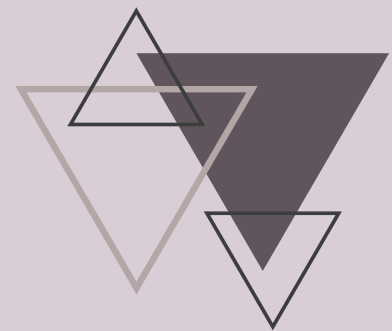


KITCHEN GARDEN BEHIND THE SCHOOL

Firstly, efforts were taken to eliminate open defecation by constructing household toilets, toilets in all public buildings and a community toilet. After the village became ODF, focus was shifted to solid and liquid waste management activities. All households were provided with dustbins for dry and wet garbage and dustbins were also kept at community places.

The GP collects the garbage everyday which is further composted at a community site. Use of plastic is completely banned in the GP area and it is meticulously monitored by the GP as well as the community.

For greywater management, most households have taken up soak pits through MGNREGS where greywater is treated and recharged in the ground.



Few households have also opted for kitchen gardens where they grow vegetables for household use. Remaining households are connected with closed drainages. The greywater flowing from these drainages is treated in community leach pits. The school and Anganwadis have also developed kitchen gardens and the vegetables from these kitchen gardens are used for mid-day meals of the students.



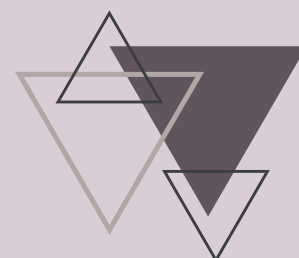
CLEANLINESS DRIVE

The GP has gone a step further to restore the greenery in the village. It has planted around 6300 trees in the GP area. In addition, a drive is executed by the GP where after death of a villager, the family plants a tree in her/ his memory and looks after it. The internal roads have been cemented and are well maintained by frequent sweeping and repairs wherever necessary. Solar street lights have been fixed to save electricity and use renewable energy. The school is also powered completely by solar energy. This has allowed reductions in carbon footprint through low power consumption in these institutions. Community places are decorated with cleanliness messages. Various drives are conducted by the GP from time to time for cleanliness, tree plantation, water saving, etc

## *Conclusion*

The latest initiative of the government to localize the SGDs in form of 9 themes has further motivated the GP to adopt the concept of clean and green village and move towards achieving the goals.

The GP now aspires to construct a waste segregation shed near the composting unit and also wishes to uptake rainwater harvesting on all public buildings.



# Bangaon GP in Aurangabad District turns tables to ensure sustainable water supply through FHTCs for all



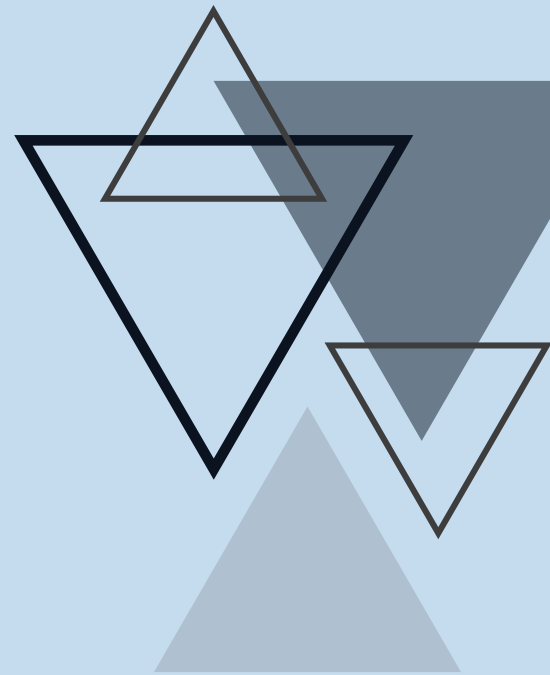
## *Abstract*

Bangaon GP in Aurangabad district found itself in a fix due to inconsistent water supply as a result of a flooding source. But the unyielding resolve shown by the GP and introduction of JJM has helped things turn around in the past two years for the community.



ESR IN BANGAON GP

In 2009, a water supply scheme under Bharat Nirman, based on Lahuki dam, was constructed in the village and drinking water was provided to Bangaon through stand posts. The scheme was functioning well for a few years after that. But soon, problems arose. During days of heavy rainfall, the river used to flood quite easily.



## *The Scenario*

Bangaon lies in the Northern region of Aurangabad and is situated on the banks of Lahuki River. The village has a population of 1445 residing in 263 households. A dam was constructed on this river in 1972 on which 15 to 20 villages in the vicinity are now dependent for their drinking water needs. Agriculture is the primary source of income for majority of the households.



This resulted in the rising mains of the water supply scheme being damaged and/or washed away. Moreover, the public well - which was the source of water supply scheme - used to get completely submerged under water. After the water receded, large amount of silting in the well caused disruption in the water supply. Frequently, the villagers were deprived of drinking water supply for 2 to 3 months as restoration works of the scheme used to take a long time.

Soon after, the situation in the village turned quite grim. Due to huge amount of funds required for repairs of the water supply scheme the Gram Panchayat was unable to find a permanent solution. Farmers had to purchase water for irrigation from nearby private wells. Drudgery of men and women alike increased as they had to fetch drinking water using bullock carts, cycles or by walking long distances.

## *Action Taken*



**CONSTRUCTION WORK OF SOURCE WELL**

As a temporary solution, the GP came to an understanding with the owner of a private well in a nearby village for providing drinking water to all the households. But at the back of their minds, the GP members knew that this was not a sustainable practice. Finally, the Sarpanch and Gram Sevak sought help from the Zilla Parishad to bring an end to their woes.

After understanding the climate hazards of flooding and acting on the advice of the district officials, Bangaon mobilized funds from GP's own revenue and 15th FC grants in 2020-21 to construct a separate public well of approx. 3 lakh litres capacity, which would act as the source for their water supply scheme. Simultaneously the GP prepared and submitted VAP under JJM for augmentation of their water supply scheme by improving the distribution network and providing FHTCs for all. After the scheme was handed over to the GP, GP members have begun its O&M in a systematic manner.

## *Conclusion*

People of Bangaon have seen both - the highs and lows - with respect to their water supply status, until they took matters into their own hands to change things. Acting to mitigate the impacts of climate change, in line with Target 13.1 and 13.2 of the SDGs, the GP now realises that they cannot rest as the work is only half done; ensuring sustainability of the new assets will be critical. In line with this, the GP has made following plans:

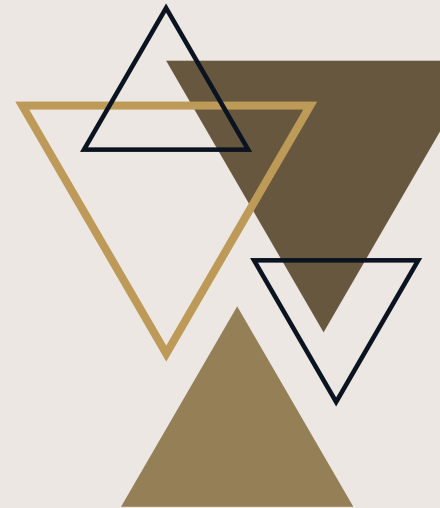
- **Providing meters to all households through 15th FC grants**
- **Setting up rainwater harvesting systems at institutional and household level to address Target 6.A of the SDGs**
- **Shifting to solar power based water supply scheme in the near future**



# Professionalization of O&M services – Ladgaon’s story of solid waste management with the support of a local NGO

## *Abstract*

Small Panchayats in the vicinity of industrial areas or growth centres often undergo rapid growth in terms of population and commercialisation. But rarely are they capable to manage the challenges associated with waste management that come along with this growth. Ladgaon GP in Aurangabad tied up with a local NGO to navigate its way through such challenges and became successful by achieving efficient solid waste management.



**A PUBLIC TOILET IN THE GP**

## *The Scenario*

Ladgaon GP is located 15 km from the district headquarters on the Aurangabad-Jalna highway. The GP has a population of 1254 according to the 2011 census residing in 272 households. The village is bordered by Shendra MIDC area, one of the biggest MIDC areas in the district. Ladgaon is therefore experiencing rapid growth in population as well as commercial buildings such as hotels, lodges, eateries, etc.

Due to absence of a waste management system to handle the biodegradable waste, open dumping of the waste increased exponentially in the past few years. Many times, hotels and even villagers used to throw this waste on the highway. As stray animals like dogs and pigs started approaching the highway to eat this waste, this led to an increase in number of accidents. Apart from that, visually unclean and unhygienic surroundings in the village exposed the residents to different diseases.

## Action Taken

People in Ladgaon started complaining to the GP members about the nuisance caused by open dumping of waste. The Sarpanch realised that the situation had now become a safety hazard and decided to act swiftly. After discussing amongst themselves, the GP formulated a notice for the nearby hotels, eateries, etc. by directing them to manage biodegradable waste on their own. The notice also stated that, strict action will be taken on the commercial places if open dumping was observed within the GP.

Due to insufficient funds at its helm, the GP was clueless about how to manage the biodegradable waste generated at household level. The GP members began searching for a different solution to the problem. Soon, they heard that an NGO named Sushikshit Berojgar, based in Aurangabad, was practicing pig farming in close vicinity of the village. The NGO collected wasted food and other biodegradable waste which can be eaten by the pigs from commercial places in Aurangabad city.

Members of Ladgaon GP proposed a different kind of a deal to the NGO. Instead of only collecting waste food, the NGO would collect all types of waste from the GP and would receive service fees of Rs. 15000 per month.



In return, the NGO would cover all costs of a collection vehicle and one person for its operation and maintenance. Moreover, the NGO can sell non-biodegradable waste to scrap dealers and recyclers and would keep the compensation received from the same with themselves.



**PIGS EATING FOOD PREPARED FROM HUMAN FOOD WASTE**



**COLLECTION OF WASTE**

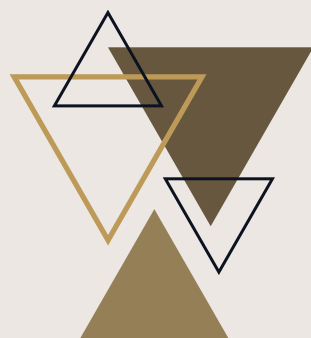
Before initiating the operations, the GP procured household level dustbins for all the households and conducted rigorous IEC activities to convey the importance of segregation of waste at the household level. This ensured that the NGO didn't have to face any issues during collection of waste. As the NGO was supposed to collect, segregate and safely dispose the waste further, the GP became free of these responsibilities. A resolution was passed by the GP in gram sabha and the agreement with the NGO received approval of the community

## Conclusion

In the past two years, the scene in Ladgaon has suddenly transformed. The premises of the GP are now observed to be clean with minimal litter and everybody practices waste segregation at household level. Ladgaon was nominated for Sant Gadgebaba Gram Swachhata Abhiyan 2021-22 and won the award for its dedicated efforts to manage waste properly. This has helped the GP achieve specific targets under SDG 6 – access to adequate sanitation for all and SDG 12 – reduce release of chemicals and waste into the environment.



**GP MEMBERS CLEANING THE SURROUNDINGS DURING AN AWARENESS DRIVE**

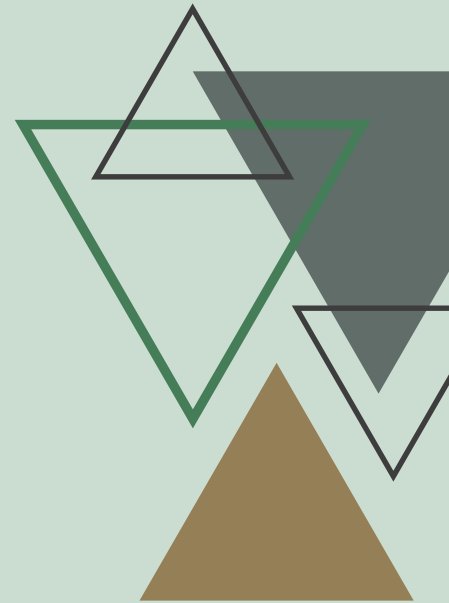


Success of Ladgaon has shown that sometimes, cost-effective options like handing over waste management and operations to a third party can be a great way to ensure sustainable sanitation service delivery within the village.

# Decentralised Approach For Grey Water Management - A CASE STUDY of Barwadpada GP, Block-Jawahar, Palghar.

## *Abstract*

Treatment of Greywater at the nearest possible point from the point of generation is the principle adopted by SBM(G) II. Therefore, instead of creating high cost infrastructure for GWM the focus has been given to adaptation of a decentralised approach for greywater management. Decentralised approach not only enables installation of low cost technologies but it also helps to create ownership amongst villagers about the created facilities. Barwadpada GP of Palghar district is the best example to showcase how decentralised approach for GWM can transform the existing status of GWM. The region is vulnerable to climate change-induced hazards like floods and landslides. Adoption of a decentralised approach can help Barwadpada and other such GPs to ensure sustainable service delivery by increasing risk resilience.



**MAGIC PIT FOR COMMUNITY WATER POINTS**

## *The Scenario*

Barwadpada GP is located in hilly regions of Palghar and consists of 219 households contributing to a total population of 714, as per 2011 census. As a result of absence of proper arrangements for disposal, greywater from the entire village was disposed in open. This resulted in dirty & unhygienic surroundings, spread of vector borne diseases such as Chikungunya and affected economic conditions of villagers.

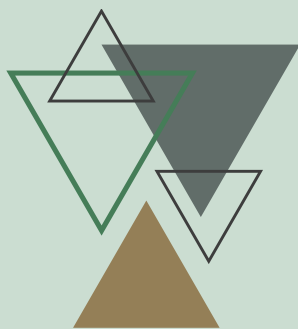
With all these issues the livelihood status of village was degraded. In relation to these challenges, creation of sustainable grey water management facilities at both individual and community level was required. So the GP decided adopt a decentralised approach for managing grey water by construction of magic pits at individual and community level.

## Action Taken

Firstly, a gram sabha was organised to brief the community about harmful impact of disposing waste water openly. Also importance of construction of individual & community level magic pits was explained to villagers. As a part of implementation strategy, the GP gave special focus to women SHGs and engaged them for facilitating various door to door awareness activities. This initiative helped to ensure women's full participation and equal opportunities for leadership at all levels of decision-making in congruence with Target 5.5 of SDGs. After sufficient awareness engagement, Barwadpada focused on fund mobilisation for construction of magic pits.



MAGIC PITS AT INDIVIDUAL LEVEL



GP used plastic tanks in replacement of cement tanks to save transportation and overall construction cost. Later as per the guidelines of SBM (G) II, construction of individual level magic pits was done in convergence with MGNREGS. A separate muster was formulated for workers and amount of Rs. 428 was credited on the workers account.



COMMUNITY LEVEL MAGIC PIT

The GP purchased other materials such as cement, pipes, elbow, bricks, etc. from own GP funds. In case of households having less availability of space, a common magic pit was provided through clustering. All these efforts done in a mission mode resulted in construction of 189 individual level and 10 community level magic pits covering 30 families. Magic pits have also been constructed at points where water sources are present.

## Other Initiatives:

- Increase the share of renewable energy through 100% use of solar energy in institution (GP Office, anganwadi, gym, etc.) – localisation of Target 7.2 of the SDGs



INSTALLED SOLAR PANELS



INSTALLED COMMUNITY LEVEL BINS

- Installation of community level garbage collection bins



- GP has its own medical (Free medicines are given to villagers with proper prescription)



MEDICAL FACILITY OF GP

## Conclusion

Due to decentralisation of services and facilities, regular O&M is done by villagers themselves ensuring sustainability of the assets. As no water is disposed in open areas the village has achieved the status of a visually clean village. Non-existence of water stagnant conditions has helped to create hygienic surroundings for villagers. Compared to earlier situation, now the disease rate is very low resulting in improved health and economic conditions of villagers. The GP collects a sanitation tax of Rs. 100/HH/annum. Enhanced quality of services has helped the GP to collect 100% sanitation tax for last 3 years. Overall efforts taken for GWM have helped to increase the ground water table and have reduced the earlier risk of water scarcity.



STATUS OF VISUAL CLEANLINESS IN GP

Understanding the importance of GWM, the GP has planned for creation of platforms at every FHTC and connecting them to existing magic pits everywhere, before their installation. Implementation of affordable and safely managed technological option for GWM showcases the GP's efforts for localisation of Goal 6 (sanitation for all), Goal 9 (affordable and quality infrastructure) and Goal 12 (reduce waste generation through recycling and reuse) under the SDGs.

“

*“Earlier disposal of waste water was a big issue for us. Unhygienic surroundings created a huge impact on the health conditions of women and children. But through united efforts from villagers and SHGs we were able to modify the entire scenario”*

-Ms Shubhangi Khurkute, SHG Member & Ms Sunanda Maule, GP Member, Barwadpada, Palghar.

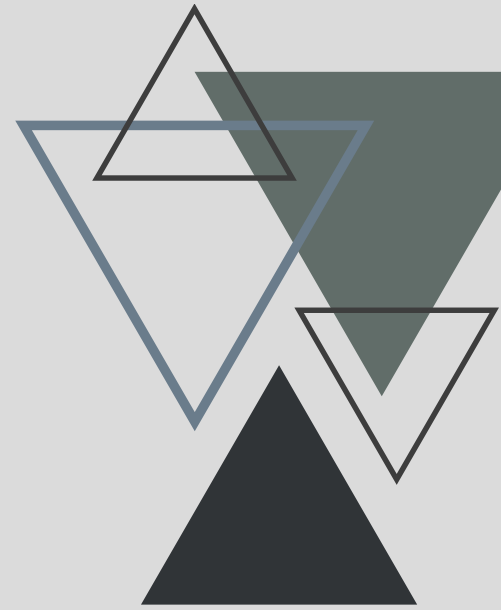
”



# Pimpalgaon Baswant's Inspirational Story: Setting up Large-Scale and Efficient Facilities for SLWM

## *Abstract*

Management of solid and liquid waste in rural areas is a tough task for big GPs as they need centralized systems and interventions to handle the quantity while ensuring quality. But Pimpalgaon Baswant GP from Niphad block of Nashik district is one of the exceptions to this scenario with its comprehensive arrangements for SLWM. Through its collaboration under CSR of Hindustan Aeronautics Limited (HAL) and implementation of SBM (G) II, GP has shown how densely populated GPs can establish sustainable SLWM facilities through convergence.



GRAM PANCHYAT OFFICE

## *The Scenario*

Pimpalgaon GP consists of 12623 HHs contributing to a total population of 40,654 individuals. The GP is located in a peri-urban area and lies on the periphery of NH 60. Due to huge population of GP SLWM was a major challenge. No existence of arrangements for SLWM resulted in disposal of solid and liquid waste in open which created unhygienic and dirty surrounding. Creation of proper SLWM facilities and infrastructures had become absolute necessity for GP, as the nuisance generated due to unsafe waste disposal reached a tipping point.

After understanding the seriousness of the issue GP focused on creation of sustainable SLWM facilities. On background of this need, GP approached CSR wing of Hindustan Aeronautics Limited (HAL) and with effective implementation of SBM (G) II, the GP was able to transform the existing SLWM status.



STP (CAPACITY 1 MLD)

## Process:

During the implementation process, GP initially focused on active community participation through Gram Sabhas. After developing a common understanding regarding the required interventions, GP approached for CSR support from HAL and component wise implementation of SLWM was initiated. Special efforts were taken for achieving 100% GWM by connecting greywater of 9897 households to newly built closed conveyance system. Further the conveyance system is connected to an STP plant of 1 MLD capacity build through CSR support, based on Phytoid technology



For remaining households individual soak pits were constructed to manage GWM with decentralized approach. The entire O&M of the STP is done by the GP.



COLLECTION VEHICLES OF PIMPALGAON GP

For solid waste management, 11 collection vehicles were procured through GP funds to collect dry and wet waste separately from households. Plastic is baled in a bailing unit with 100 kg/day capacity and channelized for proper recycling, which has also been set up under CSR support. In order to treat wet waste separately, a Biogas unit of 3 Ton/day capacity was built through CSR support on GPs own land.

Waste collected daily is processed in bio gas plant and energy produced is utilized for various purposes. In order to ensure sustainability of services through regular O&M of infrastructures, the GP is taking regular service fees from villagers.

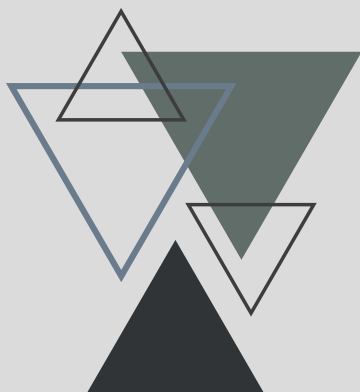
# GLIMPSES OF SLWM ARRANGEMENTS IN PIMPALGAON-



INDIVIDUAL SOAK PITS



BIOGAS UNIT

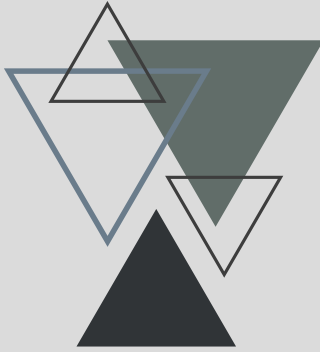


PLASIC BAILING UNIT

# Conclusion

Implementation of all these activities formed the foundation on which the GP is delivering proficient SLWM services to the community. Strong waste collection mechanism has not only helped GP to manage 800-900 KGs of daily waste but has also helped to establish a robust revenue model through SWM. Also well-established forward linkages for plastic waste are ensured for proper PWM.

Through this system, GP has been able to generate income opportunities for 90 locals who have been appointed to take care of O&M of various facilities. This effort seeks to achieve Target 8.3 of the SDGs - Promote development-oriented policies that support decent job creation.



## पुनर्वापर करून वर्षाला १८ कोटी लिटर पाणीबचत

### पिंपळगाव बसवंत ग्रामपालिकेचा अभिनव उपक्रम

**संकाश सुतोये**

पिंपळगाव बसवंत, ता. ब. : पाण्याचा वेळवेळीस झिळी असणेत असतो याचे महत्त्व अकार्यकारण भागातील नागरिकांनी अधिक असते. पाण्याचे महत्त्व जाणून घराठी पहिले जागरण ओलेपिंप वेळगावाचा पिंपळगाव प्रापर्यवाचनीचे बचनीचा घर्ण अवलंबला आहे. जलसुधीकरण याचा जाणाचा पाण्यावर प्रक्रिया करून ते पुन्हा वापरता आणते. पावून दर वर्षी सुमारे १८ कोटी लिटर पाण्याची बचत झाली आहे. असा अधिकृत उपक्रम राबवून पाणीबचनीचा संदेश कुनीतून पाठवित्तारी पिंपळगाव बसवंत राण्यातील पहिली प्रापर्यवाचनी ठरली आहे.

पिंपळगाव बसवंतची महान भाणवित्ताराठी पाणवेड घरणतून कुनी व नवी पाणीसुवळा घोजना घडतान ठरली आहे. दररोज सुमारे २५ लाख लिटर पाणी घरणतून वेळवेळीस राण्यातील जलसुधीकरण केंद्रात राण्यातल्याने पोचते. या पाण्याचे सुधीकरण करण्याराठी दररोज सुमारे पाच लाख लिटर पाण्याची बचती घडवली. याबचत प्रापर्यवाचनी प्रतासन विता लक्का करीत होते. या पाण्याचा पुनर्वापर करत होईल, याबचत मंथन झाले. पाणीसुवळा विभागाच्या अधिकार्यांचा सल्ला घेण्यात आला आणि उभा राहिला पाणी पुनर्वापरचा जलकुंभ. सुमारे सौख लाख लिटर पाणी दररोज सुद्ध करणारे पिंपळगावचे जलसुधीकरण केंद्र, पुनःचा वासुला पाच लाख लिटर पाणी बापा जात होते. त्यामुळे हे केंद्र 'असून अडचण, बघत खोड्या', असे झाले होते. सुधीकरण केंद्रात पाणी वेण्यातून राण्यातील घराठी पाच लाख लिटर पाणी बापा जात होते. त्यावर लक्काचे घानेदरान घेतले गेले. बॅकवॉलगाठी बापरले जाणाचा असुद्ध पाण्यासाठी जलकुंभ उभासलत आला, असुद्ध पाण्याची ल्वात साठवण करण्यत आली. अकार्यक घेवसावळीच्या सहासव्याने ल्वा पाण्यावर प्रक्रिया करून पाणी पुन्हा सुद्ध करण्यत आले. अकार्यक २५ लाख राण्याने असुद्ध पाण्याची बचत करणारा हा प्रकल्प उभा राहिला. त्यामुळे दररोज पाच लाख घडवते घर्णला १८ कोटी लिटर पाण्याचे संवर्धन झाले. स्वाभाविकच पाणवेड घरणतून घर्णवळी वेळी पाणी कमी ठरवते गेले व इतर गावांसाठी ते बापरले जात आहे.

जलसुधीकरण करणारा घाचा जणारे पाणी, हा घिनेचा विषय होसा. अकार्यक घर्णला साखरीलाघ्या पाण्याची बचत होत आहे. पाण्याचा पुनर्वापर करणारी पिंपळगाव राण्यातील पहिली प्रापर्यवाचनी आहे. -परीज सवकार, प्रापर्यवाचनी सल्ला, पिंपळगाव बसवंत




### NEWS ON REUSE OF GWM

Treated grey water is being used by 3 local brick makers who pay an annual charge of 5000 Rs. each to the GP. The system has contributed towards financial aspect of regular O&M of the STP. Through the treatment of greywater, Pimpalgaon is focusing on localisation of Target 12.5 of the SDGs by substantially reducing waste generation through recycling and reuse. The GP has localised Target 6.A through wastewater treatment and reuse.

As a result of energy generated from the biogas plant, Pimpalgaon is able to save roughly Rs. 15-20000 per month on energy expenses. This has helped reduce carbon foot prints in a substantial manner by addressing Target 13.2 of the SDGs. This holistic approach for providing sanitation services has helped GP to achieve visual cleanliness with improved livelihood through creation of reliable infrastructure. Looking at these commendable achievements, Pimpalgaon Baswanti can become a role model for other peri-urban GPs or growth centres for professional and comprehensive SLWM.

## 100% household level biogas village – people from Shelkewadi show unity and willingness to construct biogas plants near their homes

### *Abstract*

Rural India generates high quantities of bio-waste including animal waste, kitchen leftovers, crop residue, market waste and faecal sludge. This waste has the potential to become a significant source of energy, if managed properly. Shelkewadi GP from Kolhapur has shown tremendous initiative to provide all their households with individual level biogas plants and convert waste to wealth. This supports localisation of SDGs by increasing the share of renewable energy in accordance with SDG 7 and reduction of household level carbon footprints, in line with SDG 13 on Climate Action.



GP OFFICE, SHELKEWADI

### *The Scenario*

Shelkewadi is a very small village in Karvir Block of Kolhapur district, with only 73 households and a population of 379. Due to insufficient resources available in the village, energy generation for cooking and heating purposes had become a major challenge for the people of Shelkewadi.

The villagers used to travel large distances in search of good quality wood which can be utilised for cooking and heating. Further, the smoke generated from this conventional method had many ill-effects on women's health such as breathing problems, frequent coughing, irritation in the eyes, etc. Moreover, cutting of trees meant deterioration of environmental health too. With no other recourse, the community members were living troubled lives filled with drudgery on a daily-basis.

## Action Taken

The GP realised that the situation had become worrisome and something needed to change. The issue was discussed in a Gram Sabha where the GP members proposed that installation of biogas plants may be a good solution. Once this proposal received support from the community, the GP approached Block Panchayat Karvir for further assistance. Upon the advice of officials, it was decided that fixed dome type biogas plants of 2 m<sup>3</sup> capacity each would be installed in each household. The agriculture department provided each household with a subsidy of Rs. 15000. Remaining amount of Rs. 20000 was contributed by the households themselves. For vulnerable section of the society, the GP lent around Rs. 7000-8000 each with marginal interest rates.

Before installation of the plants, all the households were given a brief orientation by Block officials on aspects like - how to install a biogas plant, how to operate the plant, benefits of installing a biogas plant, how the slurry can be used as a compost for agriculture, etc. IEC activities such as women's congregation were carried out to convey the importance of the plant.

Then, the people of Shelkewadi collectively decided to install the plants on their own - by shedding their own sweat. This proactive gesture not only helped build ownership about the biogas plants in the community, but also helped the people understand components of the technology in a better way.

## Conclusion

Due to installation of biogas plants, every household is able to save roughly Rs. 12000 per annum as a result of reduced costs for energy generation by buying gas/wood and other transportation costs to find suitable wood.

Reduction in cutting of trees has enabled the village to move closer towards achieving Target 12.2 - sustainable management and efficient use of natural resources, and Target 15.1 - ensuring the conservation, restoration and sustainable use of forests.



INDIVIDUAL LEVEL BIOGAS PLANT



A WOMAN USING BIOGAS FOR COOKING

The use of biogas for cooking purpose has helped to alter the risk of respiratory diseases especially for women, inching closer to achieve Target 5.B of SDGs.

Their hardships have also been eliminated as people don't have to go out in search of wood or cut trees themselves. Women have also been significantly benefitted due to the fact that they don't have to cook in smoke of burning wood anymore. The collective and genuine efforts by villagers of Shelkewadi have made their lives much easier and have saved great personal time which is now being utilised in productive work elsewhere.

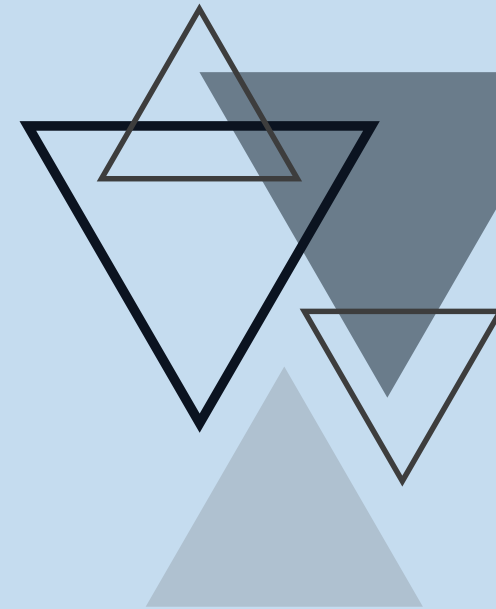
# Aurangabad district paves the path for DPR preparation under SBM(G) II in mission mode

## *Abstract*

Aurangabad district has set the planning process for SLWM under SBM (G) II in motion by going on fast track preparation and approval of DPRs. The district has also shown a lot of vigour along the way as it identifies the gaps in the process and takes effective measures to plug them through continuous reviews and monitoring.



DISTRICT LEVEL REVIEW MEETING TO DISCUSS PROGRESS OF SBM(G) II



## *The Scenario*

Preparation of Detailed Project Reports (DPRs) forms the crux of the GP level SLWM planning. The DPR is supposed to present a comprehensive outline of all the steps and resources that a project needs and should adequately reflect the strategic elements of techno-economic, ecological, sociocultural and institutional dimensions. Though critical, this step many times lacks the required detailing, reflection of field assessment, careful monitoring and technical support. Aurangabad district took elaborate steps to overcome these obstacles and set the DPR preparation process in motion. Today, the district leads the state in SLWM DPR preparation.

## Action Taken

Aurangabad district appointed Technical Support Agencies for DPR preparation of villages above 1500 population and for the villages below 1500 population, the BRCs were asked to prepare DPRs. A meeting was held by the Dy CEO on 15th March 2022 to review the status of DPR preparation. It was noticed during the meeting that pace of the progress wasn't up to the mark and needed to be expedited.



DPR SCRUTINY IN PROGRESS



The Dy. CEO took it up and adopted various steps to fast track the process. District level team by PriMove was already deployed in the district under the UNICEF project. The team showed great willingness to support the DPR preparation work.

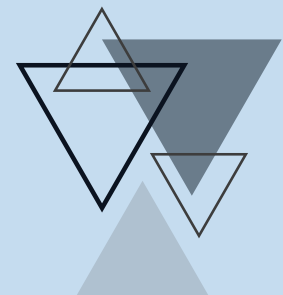
Firstly, the Dy CEO discussed with the concerned officials/ agencies regarding the issues in DPR preparation and approval.

**The key issues identified in preparing and approving DPRs were as follows-**

- Technical guidance was necessary for activities to be proposed in villages below 1500 population and above 5000 population
- The DPR was expected to be prepared through community participation. However in few villages community mobilization was an issue.
- While preparing the DPR, the population for the current year was expected to be calculated by increasing the 2011 population by 15.99%[1]. It was noticed that this exercise was not done.



REVIEW OF STATUS OF SLWM DPRS BY CEO





- The funding pattern expected was 70% from SBM(G) II and 30% from 15th FC fund. This was not followed in some DPRs
- Many times there was less communication between the agency/ official responsible for preparing the DPRs and the engineers from RWS, ZP.



**BLOCK LEVEL REVIEW MEETING TO DISCUSS PROGRESS OF SBM(G) II**



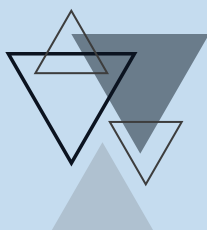
**DISCUSSIONS AT BLOCK LEVEL FOR INPUTS TO DPRS**

Accordingly, a review meeting was planned between the district officials and the persons/ agencies responsible for DPR preparation on 22nd June 2022 under the chairmanship of the CEO, ZP; EE, RWS; Dy CEO (WATSAN), all members of RWS and DWSM, BRCs, representatives of the Technical Support Agencies, etc. were present for the meeting

The CEO instructed everyone to prepare DPRs in consultation with the villagers, after careful inspection of the proposed sites. During the meeting, PriMove team members provided step by step component wise guidance on how to prepare DPRs. PriMove team members also provided handholding support to every BRC in preparing DPRs for two villages from each Block. This helped in resolving the issues in DPR preparation and approval and expedited the planning process

## *Conclusion*

As a result of these efforts, DPRs of 436 out of 626 villages have been prepared and approved. Remaining DPRs are either in preparation phase or in approval phase. Execution of the works has begun in 342 villages and work has been completed in 95 villages[1]. The district is one of the topmost in Maharashtra when it comes to completion of DPR preparation and aspires to expedite the execution work as well.



## Success Story of A Smart Village - Hadoli, TQ: Bhokar, Nanded

*“Empowered and United  
Communities can Metamorphose  
the Status of Affected Sanitation  
Services”*

### Abstract

Existence of well-functioning solid and liquid waste arrangements is still a dream for many villages. There are examples of efficacious SLWM under different schemes & programs in many villages, but sustainability of those efforts has faded with the time due to multiple issues. Similar challenge was experienced by Hadoli village, Bhokar taluka, Nanded. But persistent efforts and active community involvement has helped Hadoli bounce back and live up to its past standards.

### The Scenario

In year 2007-08, Hadoli was all set to establish new benchmark in rural sanitation after achieving district level first rank in **“Sant Gadagebaba Swachhata Abhiyan”** and achieving **“Nirmal Gram Purasakr”**. During the mission, GP successfully adapted total sanitation through community participation. But as years went by, the GP struggled to maintain the high standards set by their own people; which resulted in a slip-back as the village started falling short on its cleanliness levels. People started to litter plastic and other waste everywhere which gave rise to many severe diseases like fever, dengue, etc.



MASS CLEANING DRIVES CONDUCTED BY GP

## Action Taken

Being motivated by Mr Bhaskar Pere Patil from Patoda GP, the Sarpanch and GP members took the initiative for transforming the current situation under SBM(G) II. A Gram sabha was organized to sensitize villagers about current issues and importance of community participation for effective SLWM arrangements.

For management of plastic and solid waste, youth groups took initiative by installing steel cages for storage of waste through public subscription. The GP created village volunteer groups, each consisting of 10 members and allotted group wise sub areas to ensure area specific implementation of activities and monitoring of proposed works.



SMART GRAM HADOLI

”

### Works done under SBM:

- Installation of community level dust bins and steel cages
- Slogans and wall paintings for IEC
- Construction of 138 individual soak pits for grey water management
- Construction of 1km closed conveyance system for GWM
- Installation of 4 hand wash stations at various public places

“



In order to create behavior change amongst villagers, GP decided to carry out mass sanitation drives on every Thursday and Sunday. At present, these drives are regularly carried out with active participation by the residents. Through installation of individual soak pits, GP focused on adaptation of decentralized approach for grey water management. Regular and detailed reviews were often conducted during Gram Sabhas to keep a tab on the completed and ongoing activities. The GP formulated a WhatsApp group of youth coordinators, block & district officials to avail required technical support which helped for speedy implementation of proposed activities.

The status of previous sanitation service levels was modified as focus shifted on provision of sustainable delivery. Due to setting up of robust solid and liquid waste management facilities, open dumping and littering of waste was completely eliminated, making Hadoli a visually clean village. Improved hygienic surroundings in the GP helped to reduce the disease rate resulting in enhanced economic conditions of villagers. Continuous sensitization with respect to hygienic practices resulted in adaptation of refined SLWM arrangements. This revolutionary change helped the GP to achieve the milestone of becoming “**Smart Village**” in 2020

## Conclusion

Inspired from the outcomes achieved through implementation of SBM(G) II, GP has planned following road map for future implementation:

- Reuse of treated by-products – manure from solid waste management
- Distribution of dry and wet waste collection bins for promoting segregation at source
- Creation of village level segregation shed
- Purchase of waste collection vehicles
- Construction of waste stabilization pond for end treatment of grey water

The above roadmap shows that Hadoli is on course to become a Clean and Green village through localization of multiple SDGs such as Goals 6, 12, 13 and 15.

“

*“Comparing previous status of sanitation services with current one, we have indeed come a long way. Adaptation of sustainable SLWM practices have made our village visually clean and all this was possible only because of collective efforts of villagers”*

- Ms. Anita Amratvad, Sarpanch, Hadoli GP, Nanded

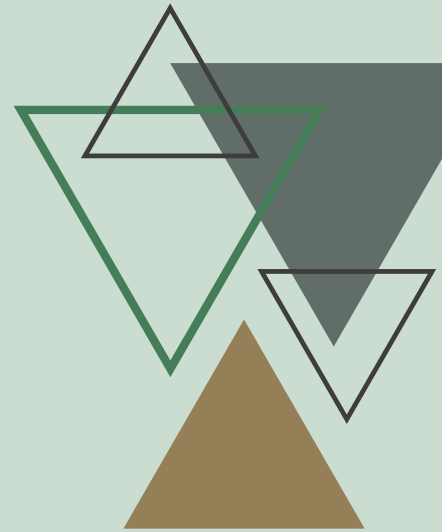
”

# Consistent efforts by Hiwre GP in Sangli district gave true meaning to sustainable water service delivery for all



## *Abstract*

Most of the success stories that we come across depict a transformation – how villages riddled with problems overcome them as a result of certain triggers and eventually set benchmarks for inclusive development and equity. But Hiwre’s story is completely different as it has continuously charted a path of diligent and sustained efforts towards over the past decade providing regular drinking water for all.



## *The Scenario*

Hiwre GP is a small and quiet village which lies in Jath Block of Sangli district. According to the 2011 census, 1754 souls live in 302 households scattered across different habitations. The village has never faced any major issue in terms of drinking water since its establishment in 1956. In 1990, a piped water supply scheme was taken up in the village under Swajaldhara program based on a public well near a local lake and water was provided to the community through public standposts.



**ESR IN HIWRE**

Twenty years down the line, the scheme started to face wear and tear as it became old. But the GP never showed any signs of negligence as it actively registered complaints from residents and took action to resolve the issues on time. For instance, leakages in the rising mains and distribution line were always repaired in a timely fashion by mobilising funds from Finance Commission grants. Soon the village spread and became more scattered

## O&M Management and IEC done by Hiwre:

- Water person appointed and paid on time who takes care of minor issues and complaints.
- Regular water quality testing by group of 5 women formed under JJM.
- Minor repairs of the WSS carried out from FC grants.
- 100% water tariff collection has ensured financial sustainability of the GP.
- School rallies are conducted from time to time to raise awareness about certain issues, importance of judicious use of water, or in case of arrears in payments of water tariff, etc. This has led to localisation of SDG 4 - Educating children on WASH practices and reaching the community through them.

## *Action Taken*

During 2015-17, 1-2 habitations situated away from the main area were facing shortage of water as their private borewells went dry during summers. Realising this issue, the GP took immediate action and constructed a new small scheme on the same public well by providing a 3 HP pump so that water could be supplied to the scattered habitations. All of this was done through own funds of the GP and from 14th FC grants.



**SCHOOL RALLY FOR AWARENESS GENERATION**

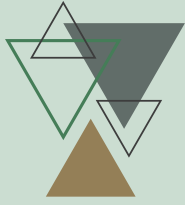


**FHTC**



As the source was under the threat of over-exploitation, the GP also carried out source strengthening works of the lake near to the public well under Jal Yukta Shivaar Yojana (as the lake was the main source or natural recharge for the well). The source strengthening was carried out through MNREGS.

After the launch of JJM, Sangli district decided that all the schemes in the district will be either retrofitted or new schemes will be provided under the program to meet the prescribed standards. Hiwre was selected under retrofitting of the existing scheme. The GP quickly conducted a Gram Sabha to pass the resolution for taking up JJM, wasting no time.



Under JJM, the old rising main, which was made of RCC, was replaced by PVC material. The distribution line was extended to provide FHTCs to households which didn't have tap water connections. Two existing storage tanks – a GSR of 5000 L capacity and an ESR of 30,000 L capacity which were built under Swajaldhara – were deemed to be sufficient for the projected population growth. The GP has provided tap connections to all the institutions in the village and has also installed handwashing station in the village primary school.

## *Conclusion*

Construction of the scheme has been completed but the scheme is yet to be handed over to the GP. But past practices of the GP indicate that newly retrofitted scheme too will be handled equally well.

Hiwre has always conducted efficient management of O&M of its water supply schemes. Active participation of local communities in improving water management and universal and equitable access to safe and affordable drinking water in Hiwre has helped in localisation of SDG targets 6.1 and 6.B. As a result, satisfaction of the community is visible from the fact that water tariff collection in Hiwre has been almost 100% in the past few years.



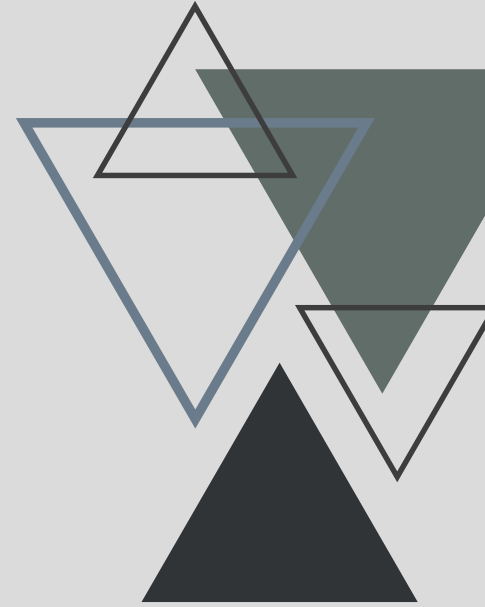
**HANDWASHING STATION IN SCHOOL**

# Har Ghar Tiranga, Har Ghar Jal – Aurangabad district completes Har Ghar Jal declaration and certification of villages in mission mode

## *Abstract*

The vision of providing every rural household with good quality drinking water through taps by 2024, put forth by the Government of India under Jal Jeevan Mission, is taking shape. While many Gram Panchayats are already engaged in creating infrastructure and establishing systems for sustainable water service delivery, some have already achieved the prescribed standard – safe drinking water at 55 lpcd through 100% FHTC coverage.

The JJM guideline states that these GPs are to be declared and then certified as Har Ghar Jal (HGJ) villages at the district level. During the celebration of India's 75th year of independence, a campaign of 'Har Ghar Tiranga' was initiated by the Central Government.



**SURVEY OF FHTC INSTALLED AT A HOUSEHOLD**

As a part of this campaign, Aurangabad ZP decided to declare and certify 38 GPs as HGJ across the district in mission mode and accelerate towards becoming a HGJ district (i.e. all GPs in the district certified as HGJ).



## The Scenario

Currently, Aurangabad ZP has provided FHTCs to 3,27,326 households, which is 68.12% of the total rural households in the district and 8 GPs have been certified as HGJ[1]. During the Independence Day celebrations, CEO of the Aurangabad district, Mr Nilesh Gatne, came up with an idea to declare 38 GPs as HGJ as a befitting response to the Har Ghar Tiranga Campaign. To ensure equal spatial distribution of the GPs, 5-6 GPs were targeted from each Block for HGJ declaration and certification.

## Action Taken

Maharashtra State Government had released a Government Resolution on 28th October, 2021 elaborating the process protocol and formats required for declaring villages as HGJ. Accordingly, the ZP and RWS Dept., with support from UNICEF and PriMove, decided to proceed ahead immediately on these lines.

Firstly, an online orientation was conducted on 2nd August, 2022, for district RWS officials, DWSM team and ISA members to discuss the HGJ protocol and to address their concerns. In this manner, the entire district machinery involved in the process was brought on the same page. Afterwards, visits were made to all 38 GPs identified for declaration as HGJ across the district. During the visits, discussion regarding HGJ declaration, process involved and documents required were done with the village level stakeholders.



EXPLAINING THE HGJ PROTOCOL TO GP MEMBERS AND COMMUNITY



EXPLAINING THE HGJ PROTOCOL TO GP MEMBERS AND COMMUNITY

If the GP satisfied all the criteria for becoming HGJ, a Gram Sabha was organized by the villages to compile the documents required and collect necessary information. Crucially, this acted as a screening test for the villages and helped the ZP to avoid any false declarations.

Ground-level handholding support was provided to the GPs regarding documentation, preparation of AV clips, how to collect feedback from the community, uploading information through the mobile application, etc. required for HGJ declaration. After the declaration and certification process, Block level RWS engineers were required to upload the information on JJM dashboard. Technical support was provided to these engineers to minimize the errors and take the process towards completion.

## *Conclusion*

Aurangabad ZP not only achieved the target of declaring 38 GPs HGJ, but eventually exceeded it by finishing HGJ declaration and certification process in 4 more GPs – accomplishing successful completion of the protocol in 42 GPs.

There is no doubt that success of a program hinges on actual achievement of goals at the ground level, which is the real outcome. But quantifiable data and proof of validation are also critical as they serve a dual purpose – timely and accurate monitoring of progress and creating a sense of achievement when one looks at the bigger picture.





**DOCUMENT DEVELOPED BY UNICEF MUMBAI  
WITH TECHNICAL SUPPORT FROM  
PRIMOVE**

