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Government of India
Ministry of Drinking Water and Sanitation
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To

1. The Principal Secretary/Secretary Incharge of Rural Sanitation
All States and UTs
2. The NBA Coordinators of All States and UTs.


Sub.: Release of "Pathway to Success" compendium of best practices in Rural Sanitation in India.

Sir/Madam

The Ministry has recently released the 2nd Compendium of best practices of Rural Sanitation in India titled "Pathway to Success". This Compendium was released during the International Conference on Rural Sanitation organized at Jaipur, Rajasthan on 5-7 February, 2014. The soft copy of the Compendium is enclosed and placed at Ministry's Website (www.mdws.gov.in). The hard copy of the compendium will be circulated to all the State Governments and UTs very soon. It is advised that States may reprint the Compendium and provide copies at least to the district level so that information of best practices can be disseminated amongst a large audience.

Encl.: As above

Yours faithfully,


(Sujoy Mojumdar)
Director, NBA



Pathway to Success

Compendium of Best Practices in Rural Sanitation in India





Pathway to Success

Compendium of Best Practices in Rural Sanitation in India







Contents

Key to Terms	06
Acronyms and Abbreviations	06
Foreword	07
Banko Bikano	
The Incredible Story of a People's Movement	11
Hamirpur District	
A Journey from 'Exploring What to Do' to 'Explaining What We Have Done'	23
East Garo Hills, Meghalaya	
Delivering Grassroots Sanitation in the Shadow of the Gun	29
Kangra District	
A Community-led Campaign Made 760 Gram Panchayats ODF in Just Three Years	33
Chokho Churu	
An Ambitious Campaign to Achieve an ODF District	37
Mandi District	
A Campaign That Could Bring Swift Progress at Scale	47
Dhansura	
Converting Dhansura Block of Sabarkanta District into a Plastic-free Zone	59
Punjab	
Liquid Waste Management through Pond Renovation	63
Gujarat	
Innovative Animal Waste Management System of Joshipura Village	
Nurturing Sughad Students in Kishorgadh	
When Waste Became a Blessing	67
West Godavari District of Andhra Pradesh	
Moving Towards ODF Plus	69
Waste Management in Rural Kurukshetra	
'Kachre Se Kamaae'	77
Madhya Pradesh	
Nirmal Gram Model Training Centers	83
Kerala	
'Thelima': A Workbook for School Children on Sanitation, Health, and Hygiene Education	89
Lucknow	
'Kachra Lao, Biogas Ley Jao'	93
Sikkim	
Solid Waste Management	99
Hoshangabad District, Madhya Pradesh	
Fixing Force Lift Pumps in Handpumps in Schools and Anganwadis to Ensure Adequate Water Availability for Toilets and Other Uses	107

Key to Terms

Gram Panchayat (GP)	village-level local governments
<i>Kala Jatha</i>	street play and cultural programs
Mahila Mandals	women's groups
Nirmal Bharat Abhiyan (NBA)	Total Sanitation Campaign (TSC)
Nirmal Gram Puruskar (NGP)	given by the Government of India for achieving an
	Open-Defecation Free and clean village
<i>Prabhari</i>	nodal officer selected from government staff posted in the GP
Pradhan	Chairperson of block panchayat
<i>Prashasan gaon ka sangh</i>	state-level government campaign to promote rural schemes
<i>Rathri chopal</i>	meetings held at night for promoting development schemes
Safai-Karmi	cleanliness worker
<i>Shibir</i>	meeting for discussion and sharing of information

Acronyms and Abbreviations

ASHA	Accredited Social Health Activist
BCC	Behavior Change Communication
BDC	Block Development Committee
BDO	Block Development Officer
BPL	below the poverty line
CLTS	Community-led Total Sanitation
CSC	Community Sanitation Complex
CSL	Community Sanitary Latrines
DRDA	District Rural Development Agency
DRNA	District-level Nodal Agency
DWSM	District Water and Sanitation Mission
GP	Gram Panchayat
GPU	Gram Panchayat Unit
GPWSC	Gram Panchayat Water and Sanitation Committee
IEC	Information Education and Communication
IHHL	Individual Household Latrine
ISL	Independent Sanitary Latrine
MoU	Memorandum of Understanding
MSeJVS	Mandi Saksharata evam Jan Vikas Samiti
MVSSP	Maharishi Valmiki Sampurna Swachata Puraskar
NBA	Nirmal Bharat Abhiyan
NGO	Non-Governmental Organization
NGP	Nirmal Gram Puraskar
ODF	Open-Defecation Free
O&M	Operations & Maintenance
SDM	Sub-Divisional Magistrate
SSA	Sarva Siksha Abhiyan
TSC	Total Sanitation Campaign
WSP	Water and Sanitation Program

पंकज जैन, आई.ए.एस.
PANKAJ JAIN I.A.S.



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Foreword

One of the major challenges before India is to provide sustainable sanitation and hygiene to its vast diverse and growing population. The Government of India has declared its commitment towards achieving MDG goals and universal sanitation coverage in the country by the year 2022, but with the current rural sanitation coverage of 32.7 percent, this is a challenging task. The Ministry of Drinking Water and Sanitation has already risen to the occasion with renewed strategies and approaches. The existing Total Sanitation Campaign has been revamped and renamed as the Nirmal Bharat Abhiyan (NBA) in April 2012 by adopting community-led and people-centered strategies with a saturation approach backed by post-achievement incentives.

One of the major shifts in the approach under NBA has been to adopt a more holistic approach in addressing issues related to sanitation. Apart from addressing the issues of building individual household toilets, community toilets, and constructing toilets in anganwadis and schools, the Government has placed a lot of emphasis on providing the much-needed flexibility to households to choose the sanitation technology they prefer from a variety of options based on socio-cultural aspects, hydro geographical conditions, and economic status.

The Government has also streamlined steps to make available sanitation material and equipment within the reach of the common people by providing incentives for the setting up of Production Centers and Rural Sanitary Marts in rural areas. These Marts ensure that a variety of pans, soakages, compost pits, vermin-composting processes, and washing platforms are made available at nominal cost to the general public. Another area that has been accorded prime importance is the management of solid and liquid waste (SLWM), which is essential for promoting a hygienic and healthy environment. Under the SLWM component, the Government is promoting innovative and adaptable initiatives like compost pits, vermin composting, common and individual bio gas plants, and low cost drainage apart from collection, segregation, and disposal of household waste at the village level.

These initiatives will be unsuccessful if the general public is not educated about the benefits of incorporating safe sanitary practices and if they remain unaware of the various facilities and incentives being provided by the Government. A comprehensive Sanitation and Hygiene Advocacy and Communication Strategy Framework (2012-2017) has been launched by the Ministry with the objective of rolling out a number of communication activities in a phased manner to sensitize the general public about various aspects of sanitation. An intensive

audio visual and radio campaign has been launched at the national level while the States and the Gram Panchayats have been urged to also include Interpersonal Communication and direct media activities. The need to broaden communication on rural sanitation and its various facets has been accepted and is being initiated with vigor.

As a part of this information dissemination approach to be able to bring about much-needed behavioral change, it is essential that we share stories of successes that have emerged from various States and UTs over the last decade. One State and 28,002 Gram Panchayats across the length and breadth of the country have been awarded Nirmal Gram Puraskars so far, as an acknowledgment of the significant sanitation initiatives taken up in their areas. Many of these GPs are shining examples of how to overcome extraordinary odds to achieve this status.

The Ministry, with the assistance of Water and Sanitation Program (WSP), has put together a second volume of Compendium of Best Practices on Rural Sanitation titled 'Pathway to Success'. This is in continuation with the first volume, titled 'From Dreams to Reality', released in 2010. The 16 success stories documented in the Compendium can be lessons of great inspiration and serve as models for various Gram Panchayats, Districts, and States across India in overcoming hurdles and obstacles in various fields as diverse as Community Participation, Sustainability, Resource Mobilization, Solid and Liquid Waste Management, Program Implementation, IEC Practices, and Institutional Reforms.

I would like to place on record our deep appreciation to all the community members, grassroot sanitation workers, Panchayati Raj Institutions, and government officials who have been documented here for the wonderful work and sincere efforts they have put in to provide a clean and healthy environment and hope that they will continue to be role models for the NBA program.

New Delhi
13.12.2013


Pankaj Jain





BANKO BIKANO

The Incredible Story of a People's Movement

One might cite endless legitimate excuses if Nirmal Bharat Abhiyan (NBA) failed to bring about the desired results in Bikaner. The district is a vast desert terrain with an area comparable to that of many Indian states. From district headquarters, an officer would need a full day to visit the farthest village in the district by car. People in these remote villages live in *dhanis* surrounded by sand dunes. Gram Panchayats in Bikaner can reach a radius of up to 40 kilometers, an area comparable to that of blocks in other districts. There is no dearth of space in which to answer nature's call. On the other hand, the basic task of fetching drinking water requires painstaking efforts on the part of women, let alone lugging home water for use in toilets. A campaign to stop open-defecation in this environment would seem doomed to fail.

Nothing is impossible for the people of Bikaner, however; after all, they have survived and prospered in this hostile desert environment for generations. A simple trigger was all it took to

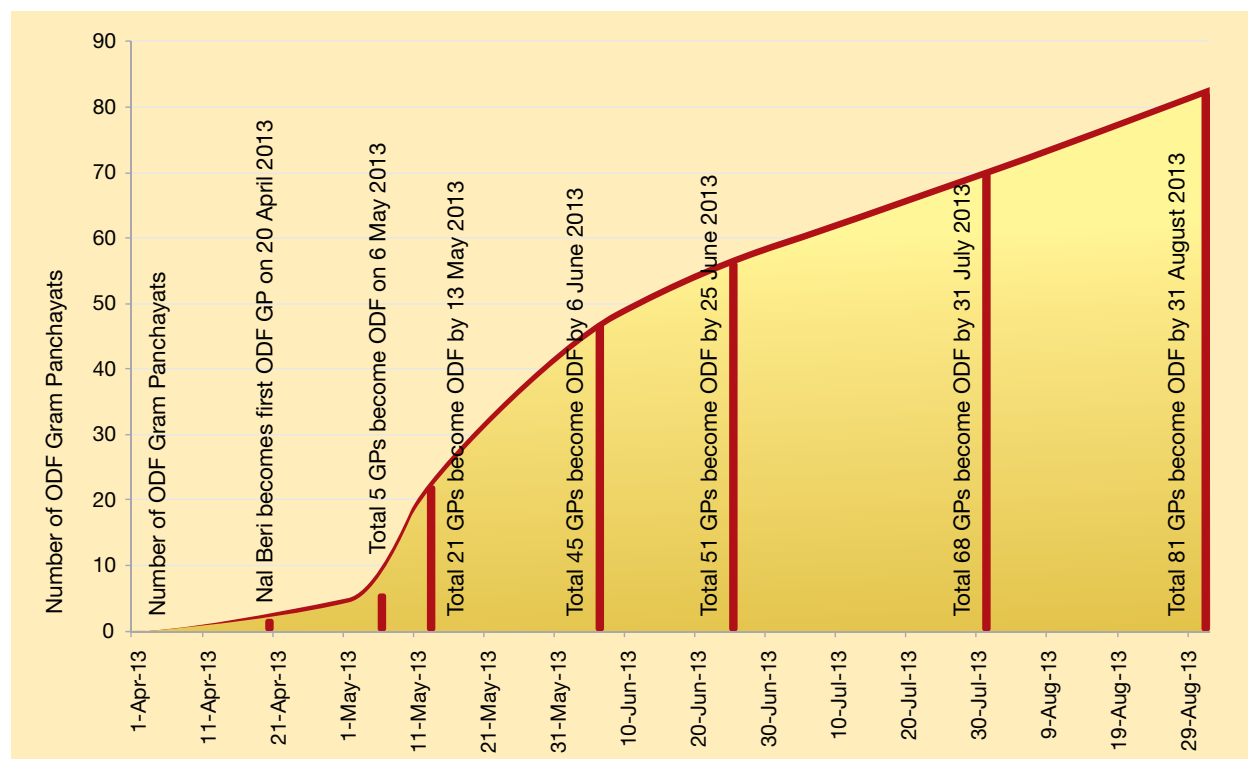


“बंको बीकाणो”

prompt them to abandon the age-old practice of open-defecation in favor of a dignified and healthy future. It was provided by Arti Dogra, who was named District Collector of Bikaner in October 2012 after having served in the same capacity in Bundi, where her efforts to run a community-led sanitation campaign in the district, under Nirmal Bharat Abhiyan, were recognized at the national level. Now Bikaner district has witnessed an unprecedented campaign by the name of 'Banko Bikanero' to eliminate open-defecation completely. Moving along at an impressive pace, the campaign has already reached important milestones toward achieving Open-Defecation Free (ODF) Gram Panchayats, as shown in the graph.

PATHWAY TO SUCCESS

Progressive Curve of Scaling-up of ODF GPs in Bikaner



Laying the Foundation

In launching the campaign, Arti's first step was to seek the technical support of the World Bank's Water and Sanitation Program (WSP) in initiating a community-led sanitation campaign in Bikaner. Having associated with the Collector during the campaign in Bundi, the WSP's India team agreed to extend their support to the proposed Bikaner campaign under her leadership.

Before starting a district-specific campaign under Nirmal Bharat Abhiyan, Arti had to reach two important milestones. First, the elected representatives—including Zilla Pramukh, Pradhans, and Sarpanchs—would have to share the vision of achieving ODF villages. As expected, securing this support was not easy; based on their

prior experience with government programs, district leaders believed that constructing toilets and making them available to the people could become a wasteful expenditure. In effect, many of the toilets that had been constructed under CRSP and the Total Sanitation Campaign (TSC) by contractors or NGOs were seldom used. But when they realized that the new Collector was planning a different sort of campaign focusing on community-wide behavior change rather than simply on constructing toilets, all leaders and officers of Zilla Parishad—including the CEO and ACEO—wholeheartedly supported the idea.

The second crucial challenge involved building a dedicated and capable team to serve as the District Support Unit tasked with facilitating

the community-led campaign. Not only was the district lacking a District Coordinator and block coordinators responsible for overseeing NBA, the program was virtually nonfunctional in the district. Finding the right person to serve as the District Panchayat's District Coordinator took a few months. Mahendra Singh Shekhawat, with prior experience working in the TSC, was named District Coordinator in March 2013 and a dedicated team of resource persons and campaign facilitators was appointed soon thereafter.

The Beginning

With the preparatory phase completed, the campaign was officially launched on April 1 with a five-day training of the newly engaged district team on community-led total sanitation, facilitated by Feedback Ventures, a resource agency engaged by WSP. The inaugural function was attended by

If people waited for financial support from the government, massive change of this nature could not have been accomplished in such a short time

the Chairperson of the District Panchayat, the District Collector, the CEO and ACEO of the District Panchayat, along with numerous other leaders and officers.



PATHWAY TO SUCCESS

During the training program, resource personnel introduced trainees to various methods for triggering community-wide behavior change among communities. Nal Beri and Ridmalsar Purohitan Gram Panchayats provided examples; here, Community-led Total Sanitation (CLTS) techniques had served to trigger local populations by helping them to visualize the ways in which open-defecation affected their health, dignity, pride, and future. Concretely, the CLTS tools demonstrate how feces come in contact with the water and food that people eventually consume and how open-defecation poses a risk to the dignity of women. They additionally present means of identifying natural leaders in the community who might be tapped to serve on *nigrani* committees to ensure the regular follow-up of the campaign to stop open-defecation.

On the last day of training, the communities of Nal Beri and Ridmalsar Purohitan declared that people in their villages had already begun constructing toilets themselves in large numbers, and their Gram Panchayats would become ODF in April. They also promised that the communities would support the efforts of poor households to construct toilets, as it was realized that the community's wellbeing was dependent on the cooperation of every one of its members.

A Surprise: Nal Beri Became the First ODF Panchayat Within 10 Days

Nal Beri has become the first ODF Gram Panchayat, with the local population having constructed more than 500 improved toilets over the course of 10 days. It was notable that this effort was not prompted by communication about financial support from the government. Every

household built a toilet and began using it as a matter of dignity, thanks to regular follow-up by the *Sarpanch* and *nigrani* (oversight) committees. The District Support Unit soon learned an important lesson: if people waited for financial support from the government, massive change of this nature could not have been accomplished in such a short time. Afterwards, District Collector Zilla Pramukh, along with the CEO, ACEO, District Coordinator, and other elected representatives and officers, visited the Gram Panchayat. Appreciating the *Sarpanch* and community for their remarkable achievement, they announced many rewards for these communal efforts, including ₹20 lakh for SLWM. News of these events spread like wildfire, thanks to extensive media coverage and the strategic communication of the District Support Unit. More and more *Sarpanchs* started calling the District Coordinator to ask how they might go about starting similar campaigns in their villages.

Scaling-up Strategy: People-led and Demand-driven Campaign

Learning from the success of Nal Beri helped the District Sanitation Mission (DSM) to roll out a successful strategy for scaling-up rural sanitation. The basic principle was simple: the campaign must be community-led and demand-driven.

What follows are the highlights of the successful strategy:

- Any Gram Panchayat can join the campaign, as long as there is demand from either the *Sarpanch* or the community. The campaign should be truly demand-driven.
- Similarly, no target date for achieving ODF throughout the entire district should be

imposed, as this may undermine a demand-driven approach.

- The trained District Resource Group will visit all Gram Panchayats expressing a demand for sanitation improvement and it will trigger the community using CLTS tools.
- Immediately following the triggering, the resource group will encourage the community to finalize a date for declaring the entire GP ODF, preferably within a month, to ensure immediate community action.
- People are expected to construct toilets using their own resources and labor, as per their choice. There will be no standard size for toilets, nor will any NGOs be engaged for construction.
- A *nigrani* committee will be constituted in each village for regular follow-up, particularly during the morning and evening hours when people normally resort to open-defecation.
- The incentives announced under Nirmal Bharat Abhiyan will be delivered only after an entire Gram Panchayat becomes ODF, and the money will be directly transferred to the bank accounts of the beneficiaries. (Since GPs are expected to become ODF within one month, they will be able to manage credits from Sarpanchs or local vendors to buy materials that they can't afford.)
- PRI representatives, particularly Pradhans and Sarpanchs, should be given a lead role in the campaign.
- Money available under SLWM will be sanctioned only for those GPs that have attained 100 percent ODF status, in order to project it as a community reward.
- The District Support Unit will undertake a stringent verification of ODF status before declaring a GP ODF. An assessment will

The incentives announced under Nirmal Bharat Abhiyan will be delivered only after an entire Gram Panchayat becomes ODF, and the money will be directly transferred to the bank accounts of the beneficiaries

ensure that all households have access to toilets, including the poorest members of the community, who typically fall by the wayside in such campaigns.

- The ODF GPs will be recognized by the media and will receive a visit by senior government officials, including the District Collector, CEO, and SDM, among others.



Branding the Campaign: Banko Bikano

The district decided to brand the campaign with a name and logo that would appeal to local populations. Through a consultative process, the name 'Banko Bikano' was chosen. The word 'Banko' was taken from the expression 'Ran Banka,' which means brave and beautiful. The word 'Bikano' is widely used in the local language to represent the Bikaner region. A beautiful logo, depicting the pride of Bikaner, was developed by an accomplished artist from the region, Shri Shivkumar Swami, and was released by the Collector on April 22, 2013.

PATHWAY TO SUCCESS

An Encouraging Milestone: 21 GPs Became ODF in the First Month

In a state where districts consider the conversion of 10 to 15 Gram Panchayats a reasonable annual target in the effort to stop open-defecation, Banko Bikano proclaimed 21 GPs ODF just one month after its launch. This was indeed an unprecedented success for the community-led campaign, in which the local populations took the initiative to put an

end to this practice. The experience proved that astonishing results can be achieved when the district administration and resource group trigger communities by helping them to visualize the ill effects of open-defecation. When people equate the cessation of this practice with the preservation of their dignity, pride, and health, nothing can prevent them from making widespread and permanent change.



The Active Role of Women

Women's empowerment is an issue close to Arti Dogra's heart. The priority she placed on the sanitation campaign is attributable in part to the fact that it recognizes and emphasizes the dignity of women. It was the women of Bikaner who showed the greatest support for the Banko Bikano campaign, turning out in large numbers for every meeting and taking a lead role in the construction of toilets in their respective households.

The Proactive Involvement of PRIs

The campaign's success is additionally due to the support and guidance of elected representatives, such as Zilla Pramukh, MLAs, Sarpanchs, as well as leaders of all parties, irrespective of political divides. Conceived as restoring the pride of Bikaner—an objective that is easy to embrace—the campaign has provided politicians with a wonderful opportunity to directly connect with the population, as people come forward in large numbers when appeals are made to their dignity and pride.



Mass Communication through News Media

The Banko Bikano campaign adopted a two-pronged communication strategy. The favored method for reaching target communities was interpersonal communication, through district



PATHWAY TO SUCCESS

resource groups, PRIs, officers, and motivators. The message was reinforced through mass media communication, with the help of major newspapers and TV channels in the district. Prominent news coverage comes almost on a daily basis in all the leading newspapers, highlighting the success stories of villages, Sarpanchs, and the Banko Bikano campaign as a whole. It has helped to create demand from all corners of the district.

Regular Review and Monitoring

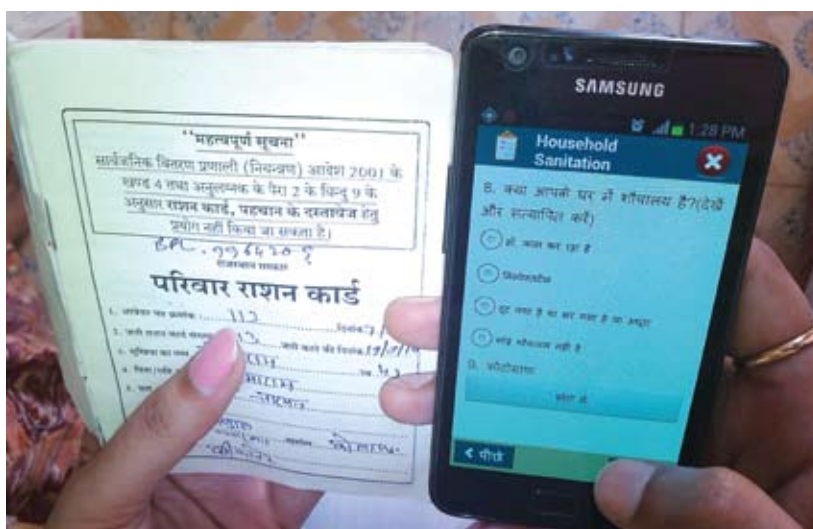
The importance of regular review and monitoring cannot be overstated when running a campaign at scale. The District Collector, Zilla Pramukh, CEO, ACEO, SDMs, and BDOs hold regular meetings of key officers at their respective levels with the express purpose of discussing the sanitation campaign. Moreover, these officers visit villages on a regular basis to review the campaign's progress.



Mobile Monitoring

Bikaner district has also become a pioneer in using an android application to verify the ODF status of Gram Panchayats. The mobile application 'Outcome Tracker' developed by WSP has been used by the district-level verification team to survey households, schools, and anganwadi centers in Gram Panchayats having claimed ODF

status. The application, featuring photographs and GPS coordinates, provides reliable information. With real-time analysis of data, it has become possible to verify ODF easily and effectively. In Bikaner, a team for independent verification has been established with members that include journalists, students, and professionals working in non-governmental organizations (NGOs).



PATHWAY TO SUCCESS



District Resource Group

The story of Banko Bikano's success would not be complete without mentioning the hard work and dedication of the District Resource Group. A tireless team of 21 resource persons, led by Pawan Panchariya and Avedesh Sharma, has worked with determination beyond the call of duty to motivate people to completely eliminate the practice of open-defecation from the soil of Bikaner. The results speak volumes about this group's effectiveness in triggering communities to change deep-rooted behaviors.





A Total 81 GPs Became ODF in Four Months and Counting...

The Banko Bikano campaign is progressing at a rapid pace, with more and more communities coming forward to embrace change. Within four months, 81 Gram Panchayats have become ODF and more are pledging their commitment all the time. As demand for change grows exponentially, it has become clear that nothing is impossible for the Bikaner community. Surprisingly, even after achieving ODF, some communities are reluctant to approach the government to obtain the promised incentive. The district support unit has had to literally remind the communities to submit their applications for releasing the reward funds. People are using toilets not for personal gain but rather for the sake of their pride and dignity.



Banko Bikano reminds all of us that stopping open-defecation throughout Rajasthan and even India would be quite possible, if we were ready to learn from Bikaner's success. There are no longer any excuses.

Additional details about the campaign and regular updates can be accessed at
<https://www.facebook.com/BankoBikano>

For more information, contact: Zila Parishad,
 Bikaner, Tel: 0151 2226004, 2206016





HAMIRPUR DISTRICT

A Journey from 'Exploring What to Do' to 'Explaining What We Have Done'



Hamirpur is the smallest district of Himachal Pradesh. With an area of 1,118 sq km, it is located on the western side of the district, close to the Punjab border. There are four administrative sub-divisions, six development blocks, 229 Gram Panchayats, and 1,694 revenue villages in the district. Hamirpur's total population was 454,000 as of the 2011 Census. The population is predominantly rural, at 93 percent.

The project proposal for the Total Sanitation Campaign was approved in 2002, at which point close to 44 percent of the households had toilets. There was practically no progress in this area until the beginning of 2006-07; less than 1 percent of the target of 57,000 home toilets had been installed over the five years. Hamirpur was among the low-performing districts in the state in terms of TSC progress.

The district-level nodal agency (DRDA) used to wonder what could be done to motivate

communities to make progress in the Total Sanitation Campaign; they had explored many conventional approaches but none was particularly successful. It was at this time that the state government introduced training programs on Community-led Total Sanitation (CLTS), with the support of the World Bank's Water and Sanitation Program (WSP). Hamirpur volunteered to become one of the first districts to organize the training program.

The district once considered as a 'low performer' could bag almost half of the Nirmal Gram Puraskars that came to HP in 2010. In 2011, Hamirpur became one of the top 10 districts in India in terms of number of NGPs

PATHWAY TO SUCCESS

The CLTS training put an end to quandaries over ‘what to do,’ as it provided an effective strategy and tools through which to motivate communities to change deep-rooted behavior and to achieve Open-Defecation Free (ODF) communities. Since then, there has been no looking back. The nodal agency (DRDA) devised and institutionalized a community-owned campaign that produced incredible results. The district once considered as a ‘low performer’ could claim almost half of the Nirmal Gram Puraskars (NGPs) that were awarded to HP in 2010. In 2012, Hamirpur was one of the top 10 districts in India in terms of the number of NGPs it received. Already 157 Gram Panchayats in the district (close to 70 percent) were awarded NGPs.

Two institutional aspects appear to have made the critical difference: a good program manager in the nodal agency (DRDA) and a good support agency, which has provided resource support in the six blocks and at the district level. However, these were not all; a number of factors contributed to the success story of rural sanitation in Hamirpur.

Institutions

The district established a district-level sanitation committee with a Deputy Commissioner as Chairperson and a Project Officer DRDA as Member Secretary, who was also the district nodal officer of TSC. Sub-divisional Officers were designated as TSC nodal officers for concerned blocks; they took a lead role in universalizing the sanitation campaign by ensuring the active participation of various departments. The district also institutionalized block-level sanitation committees under the leadership of chairman of Panchayat Samiti and BDO as Member Secretary.

The committee gave high priority to reviewing and monitoring the campaign’s progress every month.

At the Gram Panchayat level, the entire collective Panchayat, led by the Pradhan, facilitated the campaign. The school teachers and members of Mahila Mandals (women’s groups) have played particularly important roles in motivating communities to adopt best sanitation practices.

The Himachal Pradesh Voluntary Health Association was engaged as a support organization, lending dedicated staff at the district and block levels, in addition to facilitating IEC activities. The staff engaged by the support organization reported directly to the Project Officer. Ownership of the campaign remained with the community and government, however, as the role of the NGO was merely to facilitate communication and mobilize communities around the issue of sanitation.

Community Mobilization

The district has adopted an intensive campaign approach to create a demand for sanitation at all levels, with a focus on the social and health benefits of achieving ODF. The following IEC activities were facilitated in the district:

- The TSC cell arranged to perform a *Kala Jatha* (street play and cultural programs) in all the blocks and GPs, and disseminated messages derived from the CLTS training.
- Sanitation-related messages and slogans were painted along the highways, in public spaces, on government buildings, etc. throughout the district.
- Door-to-door campaigns and interpersonal communication were carried out in all six blocks.

- Swachhta Week and 'Swachata Utsav' are being celebrated throughout the state on a yearly basis. These high-visibility programs have created a surge in the level of awareness regarding the state's commitment to achieving *nirmal* status.
- Communication materials in the form of leaflets, posters, etc. are also distributed, particularly during Swachhta Week.

This multipronged strategy for community mobilization helped to create a sense of urgency among the elected leaders in the community, who, in turn, have campaigned intensely in their respective constituencies to create a shift in behavior. Thanks to the CLTS training of key stakeholders, the themes of 'shame' and 'disgust' that dominated campaign discourse have become drivers of change.

Many Gram Panchayats adopted a negative reinforcement strategy by instituting a penalty for open-defecation that was announced in village meetings and backed up by display boards. This was a bold step, made possible by political endorsement at the highest level. Irrespective of whether or not a fine was actually levied in cases of infringement, the new regulation had symbolic power and stood as evidence of social pressure to stop the practice of open-defecation. Discussions with those having built toilets as a result of the campaign reveal that social pressure was a key motivating factor.

Technology and Supply Chain

The district did not promote any particular technology over another; households were encouraged to select the toilet model that best suited their needs and budget. People have

generally managed to procure the materials necessary for building their own toilets in the market. As demand began to increase, sanitary shops at the block level started stocking more materials. Neighbors and community members collaborated to engage local masons, though they generally provided a single technical option: single pit offset from the pan with an RCC slab. These toilets can cost between ₹10,000 and ₹30,000, depending on the site. They generally have a permanent superstructure and the pit cover is an RCC slab at least three inches thick. For solid and liquid waste management, plans are made at the Gram Panchayat level, and decentralized waste management systems such as compost pits and soak pits are promoted. For non-degradable waste, efforts are made to encourage recycling through the *kabadiwala*.

Financing

Consistent with the state's policy, Hamirpur district has not used the incentives available for the BPL as the primary motivation for people to adopt toilets. It was also made clear that the incentive would be released only after all households were using toilets and the entire Panchayat had been confirmed as *nirmal* (ODF). Once a Panchayat informs the block office it has achieved ODF status, the claim is verified through peer review, in which the members of one GP verify the status of another, avoiding reciprocal verification.

The amount of the incentive is not linked to the value of any particular toilet design, although the twin-leach pit model was demonstrated for the benefit of households and masons, who were trained in constructing toilets in this fashion. No intermediaries are involved in the release of subsidies.

PATHWAY TO SUCCESS

The multipronged strategy for community mobilization helped to create a sense of urgency among elected leaders in the community, who, in turn, campaigned intensively to create a shift in behavior

For solid and liquid waste management, funds from various programs such as NBA (TSC) and MNREGA are leveraged to support plans made at the Gram Panchayat level. To offset costs, many panchayats have also used prize money from various reward schemes sponsored by state and national governments to improve systems of solid and liquid waste management.

Capacity Building

The district's sanitation campaign drew its initial momentum from the five-day CLTS workshop, organized for senior DRDA staff members, including all BDOs. A series of training programs was arranged at the district and block levels in collaboration with the support organization. In particular, school teachers and office bearers of Mahila Mandals were trained in methods for motivating communities and children to adopt changes in sanitation-related behavior. Technical training sessions were also facilitated at the block level to ensure the adoption of environmentally safe technologies. After achieving complete ODF status throughout the district, the focus shifted to solid and liquid waste management. To this

end, the DRDA facilitated an exposure visit to Kurukshetra in Haryana in May 2012 for the benefit of a group of PRI members and officers, which resulted in the acceleration of the district's progress in solid and liquid waste management.

Monitoring

The program has been closely monitored at the district level in monthly sanitation committee meetings, in which BDOs report on progress. At the block level, BDOs similarly review progress in monthly meetings with the Panchayat Secretaries. Furthermore, a meeting of the Block Development Committee (BDC) is held regularly, attended by the elected Panchayat Samiti members and the line functionaries. Monitoring the TSC is another priority item on the agenda of these meetings.

It is important to note that this monitoring was focused more on community-level outcomes, such as ODF status achievement. Cross-verification processes were also established in the district to verify the claims of ODF Gram Panchayats.

Rewards and Recognition

Along with the NGP, the Government of Himachal Pradesh has instituted three additional reward schemes:

- The *Maharishi Valmiki Sampoorana Swachata Puraskar* (MVSSP) was created in 2007. This State Sanitation Reward Scheme is implemented through a competitive process and recognizes and rewards the efforts of village communities (winners at the block, district, divisional, and state levels) in achieving Total Sanitation status.
- In 2009-10, Himachal rolled out a competition-based reward scheme for the cleanest schools

at the block and district levels. This reward recognizes those schools whose efforts and outcomes have helped achieve *Nirmal Himachal*.

- *Mahila Mandal Protsahan Yojna*, in which there is a provision for rewarding five Mahila Mandals (women's groups) having contributed to the promotion of TSC and especially having helped a GP to achieve ODF status.

Hamirpur district has implemented all the reward schemes noted above and has documented the process meticulously. These programs have been very effective in creating healthy competition among rural communities determined to achieve nirmal status. They also turned out to be effective IEC tools, thanks to media coverage of the awards.

Scaling-up and Sustainability

Hamirpur adopted a demand-driven approach for scaling-up rural sanitation. Community mobilization initiatives such as Kala Jatha and Swachhata Week were undertaken in all the GPs, then subsequently focused more on those GPs having shown interest in scaling-up rural sanitation. In such a manner, within a few years, all the GPs were covered and Hamirpur became the state's first ODF district by 2009-10. Once the ODF status was achieved, the DRDA shifted

the campaign's focus to solid and liquid waste management and hygiene practices. A third-party rapid assessment of the district claims that the ODF status has held in close to 100 percent of households, with the exception of the floating population.

Hamirpur's success story would not be complete without mentioning the Project Officer of DRDA, Shri Ajit Bhardwaj. The TSC benefitted enormously from the fact that the Project Officer was able to remain in that position continuously for almost six years, beginning in 2006, which is very uncommon in the state. This stable leadership helped the campaign to consolidate strategies and achieve sustainable results.

In a recent interview, Shri Ajit Bhardwaj described his tenure as a journey from considering 'what to do' to explaining 'what we have done.' The media and the larger population have expressed increasing interest in Hamirpur's success story, but the Project Officer is careful to remind us that 'Hamirpur would not have been a success story if it was not for the hard work of the staff of government and support organizations, as well as for the proactive facilitation of PRI members and Mahila Mandals.'

For more information, contact: District Rural Development Agency, Hamirpur, Tel: 01972 221407

A Step Ahead, Year After Year

Dalchechda GP is an example of how the MVSSP reward scheme motivates Gram Panchayats to progress year after year. In 2006, when the campaign was first initiated in the GP, sanitation coverage was only at 30 percent. The community of Dalchechda, under the able leadership of the Pradhan Shri Suresh Kumar Sharma, went on to improve the sanitation situation year after year, receiving a number of rewards:

- 2008: Declared ODF
- 2009: Awarded MVSSP—Block level
- 2010: Awarded MVSSP—District level and NGP
- 2011: Awarded MVSSP—Divisional level



EAST GARO HILLS, MEGHALAYA

Delivering Grassroots Sanitation in the Shadow of the Gun

East Garo Hills is a backward district with a disturbed Assam-Meghalaya border along which multiple insurgent groups operate. In 2011, the strife-torn district witnessed violence and ethnic conflicts between the two dominant tribes of Garo and Rabha living along the border. This type of hostilities threaten the pace and progress of local development. However, the rural development programs that are directly linked to household aspirations are performing extremely well in the district. For example, the district achieved 80 person days for each household in the Mahatma Gandhi National Rural Employment Guarantee Act in the last two consecutive years, from 2009-2011. The nerve center of unrest—Samanda Block in East Garo Hills—was the first and only block to achieve 100 person days per household in the entire state.

Similarly, the Total Sanitation Campaign (Nirmal Bharat Abhiyan), which places people at the center of development, has performed well in the



district. In the shadow of violence and disorder, the road to success has not been easy, however. In strife-affected blocks, insurgents have on occasion warned program facilitators to stay away from their territory. Regardless of these multiple threats, the facilitators persevered with their focus on people-driven change. It is often impossible to deal with such challenges unless there is a firm belief in the importance of enduring and overcoming them. This belief was fueled by the principles of the TSC campaign, which places ownership and accountability within communities. Even in the wake of direct threats, local populations were

PATHWAY TO SUCCESS

able to share the vision of ensuring safe sanitation for every household in the village, emulating the TSC success in the neighboring district of West Garo Hills, thereby instilling the hope and pride associated with the program.



Steps Towards Ensuring the Success of the Total Sanitation Campaign

Generating demand through regular training and capacity building

Several factors were at work in ensuring the success of TSC. The district underwent two rounds of training for trainers, introducing the concept of Community-Led Total Sanitation (CLTS), grassroots-level mobilization, and triggering. The participative and illustrative methods motivated the facilitators and coordinators into immediate action. CLTS shook the government representatives out of their inertia and inspired belief in the possibility of permanent change. They were able to internalize CLTS and renew their focus on promoting behavior change among communities.

Forging partnerships to drive institutional sanitation

One of the key factors in this program's success can be attributed to the partnerships forged with the most proven and established missionary NGOs delivering community service in Garo Hills for several decades. They were offered a partnership with the District Water and Sanitation Committee (DWSC) as a means of contributing to the Total Sanitation Campaign under the CLTS approach. The DWSC signed memoranda of understanding (MoUs) with three NGOs: Bakdil, Mendipathar Multipurpose Cooperative Society, and Meghalaya Rural Development Society. The mentors of these NGOs are state and national award winners that lend credibility to the association. The focus of the MoUs was the participatory involvement of the local community in joint efforts to achieve safe sanitation goals.

Contractor- or middlemen-free supply chain for last-mile delivery

The availability of and access to materials is often dictated by existing hardware suppliers. Communities are thus heavily dependent on contractors and middlemen. Hence, improving the basic dynamic of the supply chain by removing middlemen has brought greater success to the campaign. In order to ensure a steady and reliable supply chain for TSC, these suppliers and contractors were replaced with local NGOs that now provide support in guaranteeing last-mile service delivery to households. The materials necessary for building toilets have been made affordable and reach households in a timely fashion. The NGOs involved were encouraged to stabilize the supply prices and offer credit to the poor. Freedom of choice has been another salient feature of development. Rural households were provided various options from which to choose, ranging from water-saving plastic pans, to ceramic pans, to eco-san pans. Households could then make informed decisions and select the product that suited them best.

Outcomes

Total Sanitation Campaign, the people-led and people-driven program in the district, secured 49 NGPs in 2010-11 as compared to none in 2009-10. This number is reflective of the giant leap the state has taken both in confidence and in delivering results. In order to honor and commend the progress made by households, the DWSC appreciated and congratulated DWSC's President and Member Secretary for their performance.





KANGRA DISTRICT

A Community-led Campaign Made 760 Gram Panchayats ODF in Just Three Years



Kangra is the largest district in Himachal Pradesh state, with 15 development blocks, 760 Gram Panchayats (GPs), and 3,868 revenue villages. The total population of the district is 15 lakhs, according to the 2011 Census, of which almost 95 percent live in rural areas.

The district-level project for the Total Sanitation Campaign (TSC) was sanctioned in March 2005. According to the baseline survey conducted in 2005, almost 70 percent of the population did not have access to toilets. However, the TSC was not taken up on a priority basis in the district until 2008, and therefore very little progress had been made at that point; in effect, only 805 IHHLs, 15 community toilets, and 287 school toilets had been built in the district.

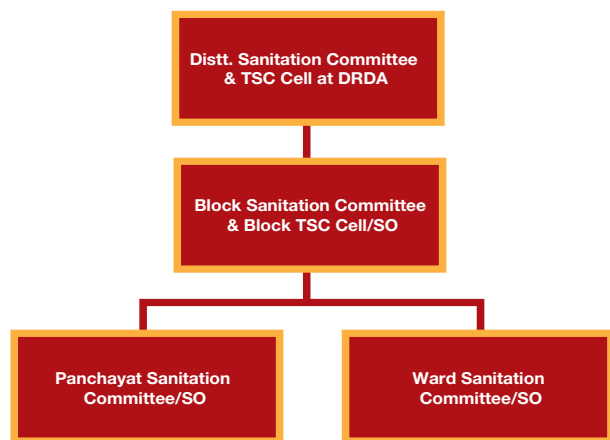
In April 2008, a new Project Officer, who happened to be trained in Community-Led Total Sanitation (CLTS), took over the charge of DRDA. He shifted the TSC's strategy from a project mode to a

campaign mode. The district sanitation mission engaged 13 support organizations posted in 15 blocks and trained them to facilitate community-based campaigns and IEC activities. Also the district and block administration started giving priority to the TSC. The results of the community campaign were dramatic; within three years, all 760 GPs in the district became Open-Defecation Free (ODF). Facilitating a campaign on this scale was not easy; it required not only strong institutional coordination and effective IEC activities but also foolproof and timely monitoring methods, to ensure quality results.

Institutional Arrangement

Kangra established a district-level sanitation committee with the Deputy Commissioner as Chairperson, the Project Officer DRDA as Member Secretary, and the district nodal officer of TSC. While a TSC cell was instituted at the district level by enlisting contracted staff, support organizations

PATHWAY TO SUCCESS



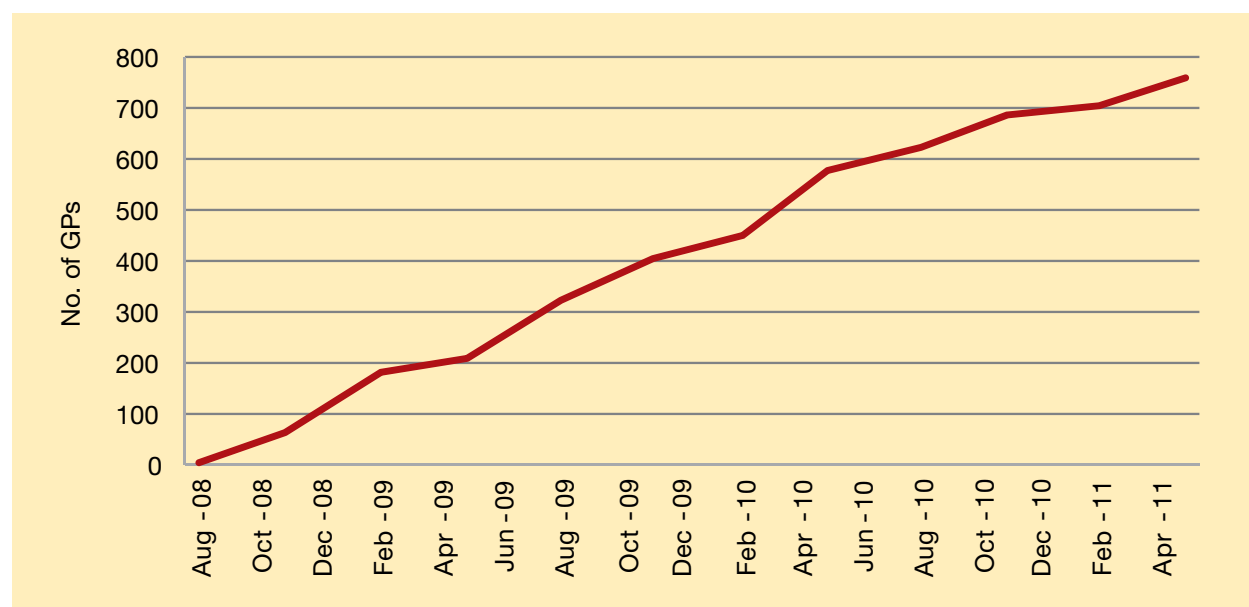
were engaged at the block level, and they in turn brought in coordinators and motivators at the block and GP levels. The district also institutionalized block-level sanitation committees, with the SDM as Chairperson and the BDO as co-Chairperson, to review and monitor the monthly progress of the campaign. In addition, Sanitation Committees were instituted at the GP and ward levels.

IEC and Capacity Building

The DRDA adopted a strategic IEC plan focusing on behavior change. The idea was to use 'triggers' to generate awareness among communities about the practice of open-defecation and then motivate them to stop the practice by constructing and using toilets. The CLTS tools were found to be effective in mobilizing communities at scale. Most notably, the incentive amount for hardware construction available under the TSC was not used for the sake of motivation. On the contrary, the incentive for BPL households was provided only after the GP achieved ODF status, which helped to leverage community action and peer pressure in promoting widespread behavior change.

In addition to CLTS triggering and follow-up through motivators, other IEC activities were also held on a regular basis, such as *Kala Jatha* (street plays and cultural programs), door-to-door campaigns and interpersonal communication,

Progress of ODF Achievement



village-level video screenings, print and electronic media campaigns, painting and essay writing competitions among school children, and the celebration of Swachata Week. In addition, state-level award schemes (Maharishi Valmiki Sampoorna Swachata Puraskar [MVSSP] and the School Reward Scheme) as well as Nirmal Gram Puraskar helped to motivate communities to achieve the desired results by instigating healthy competition among Gram Panchayats.

Monitoring

A notable strategy for monitoring ODF Status was inter-block verification, which is essentially a form of peer verification by the team, including officers and PRIs from neighboring blocks verifying the ODF status of a particular GP. This not only served as a third-party verification of ODF claims, but also provided the opportunity for exposure visits in which successful strategies and practices could result in the wider scaling-up of rural sanitation.

On the other hand, the progress of the campaign was monitored at the district level on a regular basis by the Project Officer of DRDA. The BDOs had to report monthly progress in a prescribed format that included information on the number

of motivators trained and engaged; the number of GPs having passed resolutions declaring ODF status; the number of GPs in the four ranges of coverage with home toilets (<25 percent, 25-49 percent, 50-74 percent, >75 percent); the number of GPs having declared themselves ODF in which institutional sanitation facilities have been addressed; the number of GPs in which the three major Nirmal Gram criteria have been met (ODF status + institutional sanitation + disposal of solid and liquid waste); the number of GPs having entered the state's reward scheme (MVSSP); and the number of GPs having been evaluated for NGP or having received NGP.

Since monitoring was largely focused on outcomes, the implementation of the campaign also emphasized achieving outcomes over mere outputs, such as the construction of toilets. Monitoring also helped to ensure that the vision of the district sanitation mission was shared by all the officers at the block and GP levels. The district's success in achieving outcomes at scale underscores the value of this particular strategy.

For more information, contact: District Rural Development Agency, Kangra, Tel: 01892 227612





CHOKHO CHURU

An Ambitious Campaign to Achieve an ODF District



To date, 321 Gram Panchayats (GPs, or village-level local governments) in Rajasthan have won the Nirmal Gram Puruskar (NGP), an incentive offered by the Government of India to those achieving Open-Defecation Free (ODF) and clean villages. While impressive, this figure represents less than four percent of the total number of Gram Panchayats in the state. It was widely believed that changing the sanitation behavior of the population in a state like Rajasthan is challenging, given the scarcity of water and the large expanses of land available for defecation. When a District Collector initiated a campaign to make the entire district of Churu ODF, this goal was largely dismissed as unrealistic.

To the surprise of many, however, within a few short months an entire block (sub-district) containing about 28 GPs, in addition to another 50 Gram Panchayats, effectively became ODF. The district is progressing swiftly towards declaring itself entirely ODF.



A strong leadership with an active interest in promoting sanitation was at the heart of this change. The campaign was launched in November 2013, facilitated by Rohit Gupta who was named District Collector of Churu in October 2012 after having served in the same capacity in Jhalawar. Encouragement from senior political and administrative officials at the national, state, and district levels was useful in creating and maintaining the campaign's momentum.

Within a month, all key stakeholders in Churu district—including the Chairperson of Zilla Panchayat and other elected representatives—had embraced this common vision. They were able

PATHWAY TO SUCCESS

To the surprise of many, within a few months an entire block and about 80 Gram Panchayats became Open-Defecation Free. Churu district is progressing swiftly towards declaring the entire district ODF

to witness the emergence of a mass community-led campaign that resulted in the cessation of open-defecation in more and more villages. Apart from the proactive leadership of the District Collector and Zilla Pramukh, the initiative's success is largely due to the campaign's design, which addressed all critical components, such as institutional arrangement, communication, capacity building, phasing, financing, monitoring and rewards, as detailed here.

Institutional Arrangement

A campaign of this scale would not have been possible without the robust institutional arrangements established at various levels.

District level

The District Sanitation Mission chaired by the Zilla Pramukh and co-chaired by the District Collector is the supreme authority overseeing the campaign. The Chief Executive Officer of the District Panchayat has a key role in this institution in his capacity as Member Secretary. District-level officers of various government departments are members of the mission. The mission is supported by a District Support Unit, headed by a District Coordinator and consisting of professional staff members in various fields responsible for running the campaign on a day-to-day basis, as well as by a District Resource Group, consisting of around 30 empanelled members. The resource persons are engaged on an as-needed basis to facilitate training and programs or Community-led Total Sanitation (CLTS) triggering in the villages.



Block level

At the block level, the campaign is facilitated by a core group, including the Pradhan (Chairperson of block panchayat), the SDM, the BDO, and the Block Coordinator.

Gram Panchayat level

At the Gram Panchayat level, the campaign is facilitated by a core group consisting of the Sarpanch, the GP Secretary, and a *prabhari* (a nodal officer selected from government staff posted in the GP). In addition, two motivators are engaged in selected Gram Panchayats to support the campaign.

Village/habitation level

For each habitation, a *nigrani* committee was instituted, including 10-20 natural leaders (natural leaders are identified during the process of community triggering, using CLTS techniques). To coordinate the *nigrani* committee, the GP-level *prabhari* is empowered to depute a village-level *prabhari* from among the ANMs, anganwadi workers, or school teachers.

Communication and Outreach

A district-specific communication strategy was developed by the stakeholders in the district, with support from the World Bank's Water and Sanitation Program (WSP). The key components of the communication strategy are:

Branding of the campaign focused on dignity and pride

The campaign's behavior-change communication strategy is based on dignity and pride within the

community. The branding of the campaign is done through the following initiatives:

- The campaign is named '*Chokho Churu*' (*chokho* means 'clean and beautiful' in the local dialect).
- An attractive logo is used to represent the '*Chokho Churu*' campaign, with design support from WSP.
- A stencil of *Chokho Ghar* (a clean and beautiful house) is painted on households having stopped open-defecation.
- Recognition boards are placed at government offices marking ODF Gram Panchayats as *Chokho*.



PATHWAY TO SUCCESS

It was necessary to communicate at all levels that the government's financial support was in fact an incentive, which would be provided only to those households that constructed their toilets themselves

Target the community rather than individuals

The district decided to focus all of its communication on achieving community outcomes, such as making entire villages, Gram Panchayats, and Blocks ODF, rather than encouraging individual outputs, such as the construction of household toilets. This strategy was based on the realization that widespread behavior change is influenced to a greater extent by community norms than by individual preferences.

Targeting the community as a whole also creates a social pressure among its members, motivating all people to construct and use toilets.

Community-led approach

Prior experiences revealed that the campaign would be successful only insofar as it was community-led. While CLTS triggering is effective in achieving the sort of immediate and collective action critical to the campaign's success, the target population's expectation of subsidies can seriously undermine this approach. To counter such expectations, it was necessary to communicate at all levels that the government's financial support under Nirmal Bharat Abhiyan was in fact an incentive, which would be provided only to those households that constructed their toilets themselves. This prompted the community to act immediately after triggering by the district resource group, rather than waiting for government support in undertaking construction and embracing behavior change.



Focus on interpersonal communication

The campaign in the context of a Gram Panchayat begins with two days of intensive triggering and a community outreach program facilitated by the district resource group.

This exercise, implemented under the direct supervision of District Coordinator Shyam Lal and following a systematic calendar, ensures the establishment of an enabling environment for the campaign with the proper communication strategy in all Gram Panchayats.

Integrated campaign

Chokho Churu has been on the discussion agenda in all government outreach programs, whether in the context of *rathri chopal* (meetings held at night to promote development schemes) or *prashasan gaon ka sangh* (a state-level government campaign to promote rural schemes).

Capacity Building

A campaign on this scale requires intensive capacity development programs targeting various stakeholders, which has been supported by the World Bank's Water and Sanitation Program (WSP). The WSP engaged expert agencies and resource personnel to facilitate various training programs. Most notably, a five-day training program on Community-led Total Sanitation (CLTS) was arranged for motivators and resource group members, facilitated by Feedback Ventures. Similarly, technology training programs were facilitated in all blocks by the distinguished expert Shrikant Navrekar. In addition, the WSP enlisted the support of Bhorukha Charitable Trust, which provided two full-time consultants (with expertise in communication and capacity development as well as in monitoring and evaluation) for the regular capacity development of PRI members, motivators, and nodal officers through routine meetings and field visits.



PATHWAY TO SUCCESS

People constructing toilets for themselves is a true indicator of real behavior change

Phasing

The campaign was launched in Taranagar block with a one-day workshop led by the District Collector and Zilla Pramukh in November 2012. The selection of Taranagar block as the kick-off site helped to provide a necessary momentum for the 'Chokho Churu' campaign. Thanks to the proactive leadership of SDM Haritima, BDOs Imilal Saran, and Gopiram Mehla, along with that of Pradhan Ankori Devi Kaswa, all the GPs in the block became ODF within two months. This accomplished, the campaign was extended

to Sardarseher and Churu blocks in January 2013. By May 2013, the campaign was further extended to the entire district, covering all six blocks. This phased approach and the success of Taranagar block not only helped the stakeholders to gain confidence but also helped to elucidate and replicate successful strategies from the project's initial phases.

Financing

It is widely known from the experience of implementing CRSP that providing toilets alone would not ensure the desired result. The true indicator of real and sustainable behavior change would be for people to construct toilets for themselves. However, the financial circumstances of poor households do not always permit this sort of undertaking, a fact that cannot be ignored. The district administration made every effort to



Because people are motivated to construct and use toilets as a matter of pride, dignity, and health and not in order to obtain a government subsidy, people in Churu construct toilets of their own preference, mostly of a higher value than those covered in the government incentive. Since people are allowed to construct toilets according to their preference, even poor households invest additional resources, considering long-term usage. In many cases, they even construct an additional bathroom alongside the toilet. Nevertheless, the district administration ensured that appropriate technologies are used for toilets by showcasing various toilet designs and by training masons.

Traditionally, government sanitation programs monitor the number of toilets. But a campaign that aims to make more and more villages ODF has to monitor nothing but the number of ODF villages. This shift in monitoring outcomes rather than outputs has been evident in routine review

[illegible]

PATHWAY TO SUCCESS

This process not only helped Taranagar become the first ODF block in Rajasthan, but it also acted as an exposure visit for key stakeholders, inspiring similar initiatives in other districts

meetings at the district and block levels. All are concerned about how many ODF Gram Panchayats are achieved in each block. Additionally, a monitoring board was installed at the office of the District Collector with the names of all GPs and highlighting those of ODF Gram Panchayats in green.

The campaign also adopted multi-staged verification of ODF claims by Gram Panchayats. During the campaign, many GPs displayed maps of villages in a public building with all households marked either red or green, depending on the status of toilet use. Once all households were marked green, the Gram Panchayat would send a

resolution to the BDO claiming ODF status. After verification at the block level, the BDO would forward the resolution to the district support unit. The district then sent a team of independent evaluators to the concerned GPs to do physical verification. The team would transect the village during the early hours of the day to observe any open-defecation. If the team was convinced that open-defecation had completely ceased in the GP, they would recommend declaring it ODF. Once declared as ODF, a board would be installed at the office of the GP, named as *Chokhi Gram Panchayat*, meaning clean and beautiful Gram Panchayat.

In addition, the Department of Rural Development and Panchayati Raj arranged an inter-district verification in April 2013 by sending different stakeholders—including officers of Zilla Parishads and other departments, as well as elected representatives from seven districts—to do physical verification of the ODF status of Taranagar block. The team was impressed by the amount of effort invested by various actors leading to quality results. This process not only helped to validate Taranagar as the first ODF block in Rajasthan, but also acted as an exposure visit for key stakeholders, motivating them to initiate similar campaigns in other districts.





Rewards and Recognition

Rewards and recognition played a major role in motivating PRIs and communities. For many, the very notion of becoming an ODF community and receiving the associated recognition was sufficient motivation to work hard towards the goal. Achieving ODF status is made mandatory by the DSM to issue sanction of funds up to 20 lakhs for SLWM projects under NBA. For the first batch of GPs, the check of 20 lakhs was presented as a reward for achieving ODF by the Chief Minister in a public function. This has become an effective motivating factor encouraging Sarpanchs to initiate and lead an ODF campaign. In addition, the District Collector awards certificates of recognition to the best performing Sarpanchs and nodal officers from time to time. Most notably, the Chief Minister of Rajasthan awarded Rohit Gupta, the District Collector, on Independence Day in 2013, recognizing the remarkable results of the campaign.

Key Learning

The following are the key factors that contributed to the success of the 'Chokho Churu' campaign:

- To achieve the desired results, the NBA was implemented in a campaign mode.
- Administrative and political priority was critical for initiating a successful campaign.
- An effective institutional arrangement was instituted to facilitate the campaign.
- The campaign was designed in such a way that the community takes initiative rather than waiting for government support. The government's financial support is delivered effectively as incentives and rewards for community-level outcomes.
- An effective communication strategy promoting the community-led approach was adopted.
- In each village the campaign starts with a two-day intensive community outreach and triggering exercise to motivate the community to change its behavior for reasons of dignity and pride.
- *Nigrani* committees are coordinated by *prabhari* in each village to provide regular follow-up after the triggering exercise.
- Capacity development was undertaken for using the CLTS approach and with respect to technology options.
- No contractors or NGOs were hired to construct the toilets. Toilets were constructed by the users themselves, according to their individual preferences and by investing their own efforts and resources.
- Incentives available under NBA were directly transferred to beneficiaries' bank accounts.
- Available funds for SLWM under NBA have been used as an effective community reward for achieving ODF status.

More details about the campaign and regular updates can be accessed at www.facebook.com/chokhochuru

For more information, contact: Zila Parishad, Churu,
Tel: 0156 2250594, 2251593



MANDI DISTRICT

A Campaign That Could Bring Swift Progress at Scale



Mandi district in Himachal Pradesh encompasses an area of 3,953 square kilometers housing a population of 0.99 million (2011 Census), of which 0.93 percent reside in rural areas spread across 473 Gram Panchayats (GPs). The district is divided into seven sub-divisions composed of 10 community development blocks. Mandi's literacy rate is 73.7 percent, which is slightly lower than the state average (2011 Census).

The Total Sanitation Campaign (TSC) was launched in the district in 2005. The baseline survey carried out at the time notes the existence of 188,000 rural households, of which 68 percent did not have access to a toilet. Though 32 percent of households had access to toilets, usage by household members was reported to be lower (sample survey by MSeJVS, March 2005). Also, about 20 percent of rural households were categorized as poor and below the poverty line (BPL), and 78 percent of these did not have access to sanitation facilities.

Since the TSC's launch, swift progress in the sanitation sector resulted in 473 GPs of Mandi district declaring themselves Open-Defecation Free (ODF) by the end of 2010. The district also claimed 283 Nirmal Gram Puraskars within a short period of time. The most interesting fact is that the campaign never supported the construction of toilets per se, but communities were motivated to put an end to open-defecation, which resulted in

The campaign never supported the construction of toilets, but communities were motivated to stop open-defecation, which resulted in households—both APL and BPL—constructing toilets themselves

PATHWAY TO SUCCESS

households—both above the poverty line (APL) and BPL—constructing toilets themselves. The focus was on communities, and rewards were designed in such a way that social norms were created for achieving ODF status of all GPs, rather than targeting individual households. Once the ODF status of the GPs was achieved, the campaign focus moved on to environmental sanitation and proper management of solid and liquid waste.

The Beginning

The district submitted its TSC project implementation plan in March 2005 and sanction was accorded by the Government of India that July. The plan envisaged a broad strategy for undertaking the TSC in partnership with the support organization (SO), namely *Mandi Saksharata evam Jan Vikas Samiti* (MSeJVS), in accordance with guidelines issued by the government. After the sanction was accorded, a detailed household baseline survey was conducted in August-September 2005.

At the time of the TSC's launch in Mandi district, sanitation facilities existed for 32 percent of rural households; their usage, however, was reported to be lower than that. In terms of institutional provisions, toilets and urinals were absent in

65 percent of government schools, 33 percent of privately-managed schools, and 26 percent of *Balwadis*. The distribution of Panchayats in Mandi with varying population density and sanitation coverage indicated a need for varying levels of effort and site-specific logistics. However, rather than merely selecting easy-to-cover Panchayats, the district team decided to start in all blocks to facilitate effective scaling-up throughout the district. The district administration selected a total of 85 GPs, from which demand was assured, to mobilize communities in a focused and cogent manner. It was decided that the campaign should focus on behavior change, negating the hope for subsidy but highlighting issues of pride, dignity, and health.

Enabling Institutions

One of the key attributes of Mandi's successful sanitation campaign is the presence of an effective and enabling institutional framework, from the district level to the ward level, mirroring the administrative boundaries of development decision-making in the district.

District level

The District Sanitation Mission, with its executive committee and general body, provide overall oversight, planning, and strategic direction at the district level. This institution has been designed to ensure the involvement of all major development actors (Zilla Panchayat members, department heads, nongovernmental stakeholders, etc.) and has been used as a forum to bring about necessary inter-sectoral coordination. The driving force within this forum has been a core group consisting of the Deputy Commissioner (Chairperson),

It was decided that the campaign should focus on behavior change, negating the hope for subsidy but highlighting issues of pride, dignity, and health



Additional Deputy Commissioner, and the Project Officer, DRDA (Member Secretary), supported by the TSC Project Coordinator and the Secretary of the support organization. This core group addresses and redresses daily issues that arise in the implementation of the TSC, takes necessary actions, and provides directions for the smooth progress of the campaign.

The district has also established a separate TSC cell within DRDA under the direct supervision of the Member Secretary of DSM to manage and monitor the Total Sanitation Campaign, consisting of three members provided by the support organization (Project Coordinator, District Coordinator, IEC Coordinator) and two staff members appointed by the DRDA directly (Data Entry Operator and Accounts Assistant).

Block level

At the block level, a sanitation committee has been constituted to coordinate all activities related to the sanitation campaign. The committee is chaired by the SDO and includes development actors at

Ensuring the active participation of all departments and development actors is cited as a very effective and successful strategy

the block level, such as the Block Development Officer (BDO), Panchayat Samiti Chairperson, block-level officers of various departments and programs, nongovernmental stakeholders, block resource persons, block coordinator TSC, community leaders, etc. This has helped to facilitate coordination among various departments and has ensured a priority status for the sanitation campaign. The committee strategically includes representatives from the media, which has secured the cooperation of media outlets in disseminating sanitation messages to the public. The core group at the block level responsible for driving the campaign includes the Sub-Divisional Magistrate (SDM), BDO, SEBPO, and Block Coordinator–TSC.

PATHWAY TO SUCCESS

Despite engaging a support organization, the government functionaries continued to assume proactive leadership in facilitating the campaign

Gram Panchayat level

With the leadership of the President and Vice President of the Gram Panchayat, the GP-level sanitation committee spearheaded the campaign at the grassroots level. The support agency has engaged a GP coordinator—recently renamed *Swachata Doot*—to support the GP-level campaign. This committee also actively engaged a range of key stakeholders at the GP level, including Panchayat Samiti members, ward members, school teachers, PTA representatives, representatives of Mahila Mandals (women's associations and groups at the village level), SHGs, Patwaree, workers of ICDS, I & PH, Health and Forest departments, community leaders, student representatives, etc. Ensuring the active participation of all departments and development actors has been reported as a very effective and successful strategy.

Ward level

Ward-level committees were also constituted with the leadership of ward members and the proactive participation of Mahila Mandals

to ensure the dissemination of messages at the lowest level. Indeed, the campaign's success at the village level has been largely attributed to Mahila Mandals. They not only motivated communities to adopt appropriate sanitation practices but also helped to monitor progress in behavior change at the village level.

Support Organisation (SO)

To facilitate the sanitation campaign, the district sanitation mission appointed a single SO for the entire district—*Mandi Saksharata evam Jan Vikas Samiti* (MSeJVS)—which had already worked in almost every Gram Panchayat in the district and demonstrated its credibility by collaborating with the government during the literacy campaign. With the Deputy Commissioner serving as Chairperson, the MSeJVS has taken up a number of empowerment initiatives in Mandi with a participatory orientation, thus breaking ground in the areas of microfinance and natural resource management. The longstanding association of the SO with the government combined with its presence at the grassroots level across the entire district has contributed to the campaign's success.

The support organization has engaged staff at the district, block, and Gram Panchayat levels to facilitate social mobilization, behavior change communication, and capacity development activities. Despite having engaged an SO, government functionaries continued to assume proactive leadership in facilitating the campaign. Shri Tilak Ram Chouhan, a staff member of MSeJVS, commented, 'We have never felt it was a project given to us by the government. It has been a joint campaign with proactive leadership of government officials, which made it successful.'

District Level

District Sanitation Mission

Chairperson: Deputy Commissioner
Member Secretary: Project Officer, DRDA
Members: All major development actors (Zilla Panchayat members, department heads, nongovernmental stakeholders, resource persons, etc.)

Core Group of Officials

Deputy Commissioner: Addl. Deputy Commissioner; Project Officer, DRDA; Project Coordinator—TSC; Secy. Support Organization

TSC District Cell

Project Officer (DRDA); Project Coordinator—TSC (SO), IEC Coordinator (SO), MIS Coordinator/Data Entry Operator (DRDA)

Block Level

Block-level Sanitation Committee

Chairperson: Sub-Divisional Officer (SDO)
Member Secretary: SEBPO (BDO office)
Members: Block-level development actors (BDO), Panchayat Samiti Chairperson, block-level officers of various departments and programs, nongovernmental stakeholders, block resource persons, block coordinator TSC, community leaders, media representatives, etc.

Core Group of Officials

Sub-Divisional Magistrate (C); Block Development Officer; SEBPO; Block Coordinator—TSC; and Officer Coordinator—TSC

GP/Village Level

GP-level Sanitation Committee

Chairperson: GP President; Vice Chairperson: GP Vice President; Secretary: GP Secretary; Jt. Secretary: Panchayat Coordinator (SO); Members: Panchayat Samiti member, ward members, school teachers, PTA representatives, representatives of Mahila Mandals/SHG, Patwaree, workers of ICDS, I & PH, Health and Forest departments, community leaders, student representatives, etc.

Core Group of Officials

Panchayat Pradhan, Panchayat Up-Pradhan, Panchayat Secretary, GP Coordinator

Ward-level Sanitation Committee

Chairperson: Ward Member; Members: School teachers, representatives of Mahila Mandals/SHG, Anganwadi worker, community members, Swachata Mitra

Community Mobilization and Demand Creation: A Phased Approach

The district adopted a three-staged scaling-up approach targeting 85 GPs in the first phase, 251 GPs in the second phase, and 137 GPs in the final

phase. This has not only allowed the campaign to build up momentum across the district with the effective management of resources but has also provided opportunities to learn, correct, and integrate new ideas as the campaign progressed.

PATHWAY TO SUCCESS

The first phase

The initial focus was on preparing the necessary communication materials, selecting and training GP coordinators, piloting these modules in different parts of the district, fine-tuning them, and putting in place trained teams equipped with the final communication messages. Additionally, a reference handbook was prepared for the staff and volunteers. The PRI elections in December 2005 brought in a new set of elected representatives, who were sworn in as of January 2006. By February 2006, the SO began collaborating with GP members to schedule interactions in the Panchayats.

The initial interactions took place at a *shibir* (a meeting to share and discuss information) held in the Panchayat with the leadership of the Gram Pradhan and the participation of other elected members, village elders, school teachers, and anganwadi workers. The objective was to highlight the need for household sanitation, underscore its relationship to health, discuss emerging links with village development, detail the guidelines of the TSC, and stress the need to achieve ODF as a first step. This was followed by a *kala-jatha* (street performance), an effective communication tool for reaching the community.

Once the campaign kicked off with the *kala-jatha*, the SO could begin making household visits and favoring interpersonal communication to encourage change in sanitation practices. During the campaign's initial days, the SO was the sole mover of the TSC at the block and Panchayat levels. Efforts had been made through workshops and small training sessions to bring in school teachers and ICDS personnel to support program

initiatives on the ground. The campaign started showing results when Killing GP in Gohar block became the first Panchayat to declare itself ODF in April 2006; this event was followed by 15 similar declarations by Gram Panchayats as of August 2006.

The second phase

The second phase got under way in August 2006 with 251 GPs that showed interest in implementing TSC. Based on lessons learned in the first phase, the district administration made appropriate changes to the campaign strategy, as described below.

- **CLTS methodology:** The start of the second phase also coincided with the training of master trainers on Community-Led Total Sanitation (CLTS), with the support of the Water and Sanitation Program (WSP). The methodology utilized a set of communication tools and messages that were meant to instill emotions to bring about behavior change, targeting the community as a whole.
- **Decentralized Interactions:** Due to the topography of the region, a GP-level *shibir* or *kala-jatha* was not sufficient to reach the entire population. Hence it was decided to facilitate village/ward-level *shibir* and *kala-jathas*. In addition, ward-level committees were constituted for the sake of networking and repeated interpersonal communication.
- **Negating Expectation of Subsidy:** Though the district administration had decided that a subsidy should not be used to motivate people, as it cannot bring sustainable behavior change, people expected a subsidy nonetheless. Both PRIs and senior-level officers reemphasized in every community interaction

that BPL incentives would only be paid if all households in the GP became ODF. The strategy of repeated communication was found to be successful and the focus changed to achieving complete ODF within a GP rather than merely constructing individual toilets.

- Promoting in-kind contributions: It was necessary to keep the cost of construction low to permit all households to construct and use toilets. Therefore, during the campaign itself, pits were dug by volunteers and sometimes even by senior officers, which became a motivation for households to construct toilets themselves.
- Coordination and cooperation: In the initial phase, the SO was the sole mover of the campaign. Limited support from various development actors caused delays in achieving results. The administration decided to strengthen the campaign by ensuring coordination support among various departments. SDMs were given coordination roles and the administration made it a priority to discuss sanitation in all meetings related to development, which resulted in greater ownership, coordination, and cooperation from all development-related departments.

The third phase

The district administration initiated the final phase of the campaign in June 2007 by targeting

*The administration made
TSC a priority by discussing
sanitation in all meetings
related to development*

all the remaining 137 Panchayats. The final phase continues within the structural framework that has evolved over the previous phases of the TSC program. The district administration gave priority to recognizing achievements in order to encourage positive changes and a healthy sense of competition. Special camps for PRIs, attended by the Deputy Commissioner and Additional Deputy Commissioner, were organized to appreciate and motivate the best-performing GPs. Individual efforts have been recognized through the presentation of mementos, reading of citations, etc. Appreciation certificates were presented to *kala-jatha* actors, best-performing activists, and PRI members belonging to ODF Panchayats. ODF sign boards were additionally prepared and presented to qualifying Panchayats.

The DC has taken the personal initiative along with his ADC to organize departmental employee meetings and workshops to highlight the need for their involvement in the campaign. The DC and the SO have also held meetings with CBOs, inviting their involvement in the TSC. A pamphlet containing six questions on sanitation has been distributed to all government staff with the express request that they ask these of each citizen who comes to their office for interaction or for any form of government support. The questions are designed to verify the citizen's knowledge of safe sanitation practices and to serve as a reminder of the issue's importance. Each government office has also been asked to display a chart publicly depicting the month-wise adoption of latrines by staff members.

In this phase, the campaign continued to focus on GPs selected in the previous phases. After achieving ODF, the administration started to place greater emphasis on ODF+ activities, such as solid

PATHWAY TO SUCCESS



and liquid waste management. Gram Panchayats are encouraged to adopt decentralized collection and disposal of liquid and degradable solid waste. In the case of non-degradable waste, collection and segregation at the source were promoted, after which the waste should be collected for recycling. However, this approach has proved challenging for interior villages, considering transportation costs. To address this challenge, the government has developed an innovative model for reusing plastic waste. The plastic waste from all households and shops in a GP are collected, then used by the Public Works Department to mix in the bitumen used for road construction. The district administration strictly monitors the collection process and quintals of plastic waste are being collected every month. Adding plastic to bitumen increases the quality and life of the roads. There

The plastic waste from all the households and shops are collected at the GP level, which is then collected by the Public Works Department to mix it in the bitumen used for road construction

is also a proposal that the PWD should pay ₹4 per kg to the Gram Panchayats to make the model economically viable.

Rewards and Incentives

The most defining strategy to yield results, not only in Mandi district but across the state of Himachal Pradesh, was the unique design of incentives and rewards focusing on the Gram Panchayat as a whole, rather than incentivizing individual households, as was done in other states. The focus on GPs and outcomes created widespread demand for sanitation through peer pressure and organic change in social norms. It also helped to develop effective systems to monitor outcomes, and the focus on outcomes, in turn, helped to accelerate the process of achieving those outcomes. In Mandi, a number of incentives were put in place to motivate communities to change their sanitation behavior, as presented here.

State-level reward schemes

Himachal Pradesh is one of the pioneering states having adopted state-specific award schemes to

promote rural sanitation. The Mahirshi Valmiki Sampoorna Swachta Puraskar (MVSSP) to select the cleanest GP at the block, district, division, and state levels has resulted in healthy competitions and collaboration among groups striving to achieve the status of cleanest community. In addition, the School Sanitation Reward Scheme and Mahila Mandal Protsahan Yojna complemented these efforts by assigning a high priority to sanitation as a development issue at various levels.

Post-ODF, IHHL incentive

Under the TSC, incentives are provided to families living below the poverty line (BPL). In other states, the incentive is normally given to beneficiaries or NGOs/PRIs for constructing individual toilets. However, in Mandi and in other districts of HP, it was strategically decided that these incentives would be disbursed only after the entire GP became ODF. It successfully helped to shift the

focus from construction of individual toilets to collectively achieving ODF status.

Nirmal Gram Puraskar

The Nirmal Gram Puraskars have also been very effective in motivating GPs to progress beyond ODF towards achieving total sanitation.

The most defining strategy to yield results was the unique design of incentives and rewards focusing on the Gram Panchayat as a whole, rather than incentivizing individual households, as done in other states



PATHWAY TO SUCCESS

Priority in development schemes

The district administration also offered an additional incentive by giving priority to ODF GPs in allotting development schemes. This is indeed the ideal situation: achieving sanitation is the responsibility of each community; when this responsibility is met, however, the government naturally supports the successful community in meeting other development needs.

Results and Learning

Though the planning of the campaign got under way in 2005, the support organization began working in the field in February 2006. In April 2006, Mandi saw the first ever ODF Gram Panchayat in the district. By the end of 2010, all 473 Gram Panchayats were declared ODF. By 2012, the district had also received 283 Nirmal Gram Puraskars (NGPs). This is indeed a success story in a district having made swift progress from one end of the sanitation spectrum to the other, thanks to the robust design and effective implementation of the TSC by the district administration.

To summarize, the campaign's success can largely be attributed to the following factors:

The campaign has benefited from an institutional arrangement designed to mirror the administrative boundaries of development decision-making in the district

Institutional structure for planning and delivery

The campaign has benefited from an institutional arrangement designed to mirror the administrative boundaries of development decision-making in the district.

Phased delivery

The phased plan of action taken up in the district provided the opportunity to learn, make mistakes, correct the course, and incorporate these lessons into the next operational cycle.

Increased stakeholder participation

With the lessons gleaned from the first phase implementation, the district ensured the increased participation of a wide range of stakeholders at all levels.

A range of tools

The district adopted different strategies with various stakeholder groups. While conventional IEC and CLTS tools were used at the Gram Panchayat level to motivate the local populations, it was supplemented with house-to-house visits, peer pressure from other households, recrimination from Panchayat elders, visits from known government officers (BDO, etc.) to help make the household act suitable for positive sanitation outcomes.

Proactive leadership and priority

The campaign received momentum from the proactive leadership of the Deputy Commissioner and Project Officer of the DRDA. The campaign has become a development priority and is

discussed at the top of the agenda in most government meetings.

Support Organization

The longstanding association of the Support Organization (MSeJVS) with the government, along with its presence at the grassroots level across the entire district, has contributed to the effective facilitation and success of the campaign.

Negating subsidy

A subsidy was never used to motivate households, rather the focus was on motivating the entire community to achieve total sanitation by highlighting issues of pride, dignity, and health, as well as by creating social pressure.

In April 2006, Mandi saw the first ever ODF Gram Panchayat in the district. By the end of 2010, all 473 GPs were declared ODF

Right incentives

The most defining strategy to yield results was the unique design of incentives and rewards focusing on the Gram Panchayat unit as a whole, rather than by incentivizing individual households, as done in other states.

For more information, contact: District Rural Development Agency, Mandi, Tel: 01905 222191





DHANSURA

Converting Dhansura Block of Sabarkantha District into a Plastic-free Zone



Dhansura is one of the talukas of Sabarkantha district, Gujarat. It consists of 33 Gram Panchayats with a total population of 96,389 (50,310 men and 46,079 women). Agriculture and animal husbandry are Dhansura's main livelihoods. The Total Sanitation Campaign (TSC) program was initiated in this taluka in 2004. The District Rural Development Agency (DRDA), under the leadership of its Director, is responsible for implementing the TSC program. The Block Development Office (BDO) provides technical and monitoring support to the Gram Panchayats and communities for the TSC's effective implementation. In July 2011, as part of the TSC's Integrated Waste Management campaign, a special drive was launched to convert Dhansura into a 'plastic free' taluka, with the cooperation of block and village panchayats. This campaign was initiated and managed by Amruthbhai Bhambi, Assistant Project Officer of the TSC in Sabarkantha district.

Developing Best Practices

Project planning meeting

A state-level meeting was organised under the leadership of the TSC state Program Officer to identify and work out a strategy for creating plastic-free GPs and blocks. The team agreed to make Dhansura block in Sabarkantha district a plastic-free zone on a pilot basis; lessons learned in the process would be applied when expanding the program to other GPs and blocks.

Multi-stakeholders' orientation-cum-action plan workshop

A workshop was organised in Dhansura block under the leadership of the Director of DRDA in Sabarkantha district to orient all key stakeholders on the issues of plastic waste and its impact on the environment and human life. Participants include the Sarpanch and Secretary of all 33 GPs in Dhansura block, all consultants of district

PATHWAY TO SUCCESS

and block TSC units, the State Program Officer, Block Development Officer and BDO team, the Director and relevant officers of DRDA, regional consultants, various local scrap traders, etc. At the end of the workshop, an action plan was prepared in view of making Dhansura a plastic-free block.

IEC activities

The district deputed all district TSC community mobilizers (13 members) to create awareness and organize PRIs and communities for the safe disposal of plastic waste. Each mobilizer was assigned three GPs in which to undertake various IEC activities. In addition, teachers and students throughout the district were oriented on the issue of plastic waste; they, in turn, organized rallies and door-to-door campaigns to raise awareness within their respective communities. A series of Gram Sabha meetings was held in every Gram Panchayat to sensitize GP members and communities with respect to the importance of safely disposing of plastic waste. Subsequently, a resolution was passed in the Gram Sabha to end the dumping of litter—including plastic waste—in public places

Each mobilizer was assigned three GPs in which to undertake various IEC activities

and along roads, urging citizens to instead collect plastics at the household level and sell them to authorized local scrap vendors at the rate of ₹3 per kg.

Organization of scrap vendors

Before holding the Gram Sabha, meetings took place among the Sarpanch, Gram Panchayat Secretary, Community Mobilizer, and local shopkeepers to discuss the purchase of plastic waste collected by households. In every GP, one local trader was identified and was asked to sign a letter of consent. It was decided that a village trader would buy plastic waste at a rate of ₹3 per kg; the resale price this vendor would obtain from a taluka scrap vendor would be ₹4 per kg.





Impact of Best Practice

Every GP is now more or less free from plastic waste and looks very clean. This campaign created public awareness about the adverse impact of plastic waste on humans and animals and, to a certain extent, it helped to curb the purchase of plastics. The awareness and commitment of households in Dhansura block when it comes to the safe disposal of plastic waste is very high. Until very recently, plastic was discarded as waste material; now it generates a small income for conscientious households. Many local traders and taluka scrap vendors reported earning between ₹500 and ₹2,000 per month thanks to this new trade in plastic waste. This campaign also created a demand for household toilets.

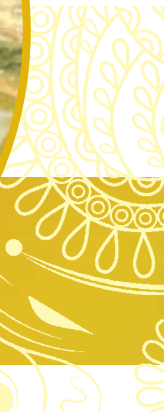
Factors of Success

- Active support of senior officers and decision-makers.
- Continuous follow-up by the district and block TSC units.
- Pooling of resources from all departments (mobilizers, extension officers, village extension workers, government grassroots functionaries, GP Secretary and Presidents, etc.).
- Strong forward linkages in the community with local traders and between local traders and taluka scrap vendors.

Learnings

- Communities became convinced of the value inherent in the safe disposal of plastic waste only when they had witnessed it generating revenue.
- This campaign was successful and sustainable insofar as all stakeholders (officials, PRI representatives, communities, consultants, local traders, taluka scrap vendors, etc.) were involved in all stages of the project cycle (planning, designing, implementing, monitoring, etc.).
- In all villages, households are now strictly storing plastic waste before selling it to local vendors once it has reached a sufficient quantity. However, the same practice was not followed by non-locals (migrant laborers, travelers, nonresident entrepreneurs, etc.), despite extensive IEC activities. The district, along with its talukas and GPs, is trying to develop various strategies for tackling this problem. Some of the proposed activities include erecting hoardings in public places, raising public awareness through the media, organizing workshops, etc.
- In some villages, the taluka scrap vendor is not buying plastic waste from local traders in spite of the schedule agreed upon, due to various factors. As a result, some local traders are facing problems in terms of finding sufficient space for storing the plastic waste, dealing with the foul smell, etc. However, district and taluka officials are holding regular meetings with local vendors and taluka vendors to streamline the purchasing process.

For more information, contact: Assistant Project Officer, Total Sanitation Campaign Cell, Himmatnagar District, Gujarat, Mobile: 09825718552



PUNJAB

Liquid Waste Management through Pond Renovation



The Punjab Water Supply and Sanitation Project—financed by the Government of India, Government of Punjab, and the World Bank—is being implemented with the active participation of the community according to a demand-driven and bottom-up planning approach. Ownership of the project rests with the village community; the Gram Panchayat water supply and sanitation committee collects beneficiary shares from the villagers, as well as operates and maintains the scheme.

However, the supply of piped water and private submersible pump sets in households has exponentially increased the generation of waste sillage. Each village has a pond, which was typically used for recreation and as a rain water harvesting and recharge structure. The waste water now being generated in villages has been channelized to these traditional village ponds, choking them and creating unsanitary environments. In light of the demand for their renovation, under the project, appropriate

technology from the technology manual (*Technical Note on Solid and Liquid Waste Management in Rural Areas*, issued by the Government of India and UNICEF) adapted to local conditions was deployed.

The intervention involved emptying the pond, desilting, and dividing it into four compartments by using earthen embankments. These compartments are, in order, the anaerobic-cum-sedimentation pond, the facultative pond, the maturation pond, and the polishing pond. Overflow from one tank goes to the next, and so forth. The use of all four compartments may vary from season to season, being less frequent in summer and more necessary in winter. It was observed that a pond of about 3 acres was able to harvest 2,000 m³ of water. A district such as Ludhiana can harvest 576 million m³ of water, which can arrest the fast-depleting ground water table, in addition to solving the problem of drainage of waste water in the villages. The total expenditure for implementing this in the entire district is expected to be ₹1,000 crores, or US\$200 million.

PATHWAY TO SUCCESS

Details of the Project

Under this project, the grey water collected through the drainage system is fed into existing ponds or ponds excavated at suitable land sites and placed serially (see diagram below). In these systems, grey water is stabilized, its pathogenicity is reduced, and the water is made useable. The grey water is stabilized by natural processes involving algae, bacteria, and natural oxidation. The hot climate, with solar radiation and light, makes this an ideal region in which to implement this process.

The advantages of pond renovation include the use of existing ponds, low capital costs, low and affordable O&M costs, the ability to use unskilled manpower to manage the process, and the avoidance of surface water pollution. However, in villages that do not have traditional ponds or in which such ponds have disappeared, getting adequate land for creating new ponds has proven challenging, due to the high cost of land in these areas.

Anaerobic-cum-Sedimentation Tank

The depth of water in the pond is kept at 10 feet for the sedimentation of suspended solids and decomposition of organic matter under anaerobic conditions to reduce BOD/COD. The surface area of the tank shall be equal to approximately 15 percent of the area of the existing pond and support a five-day retention period.

Facultative Pond

In this tank, the overflow of the anaerobic pond is being discharged and BOD/COD is reduced under aerobic conditions. The water depth is kept at 1.5 m. The tank's outlet is fixed at 1.5 m from its bed to ensure that water depth does not exceed 1.5 m. Its area is 25 percent of the existing pond area.

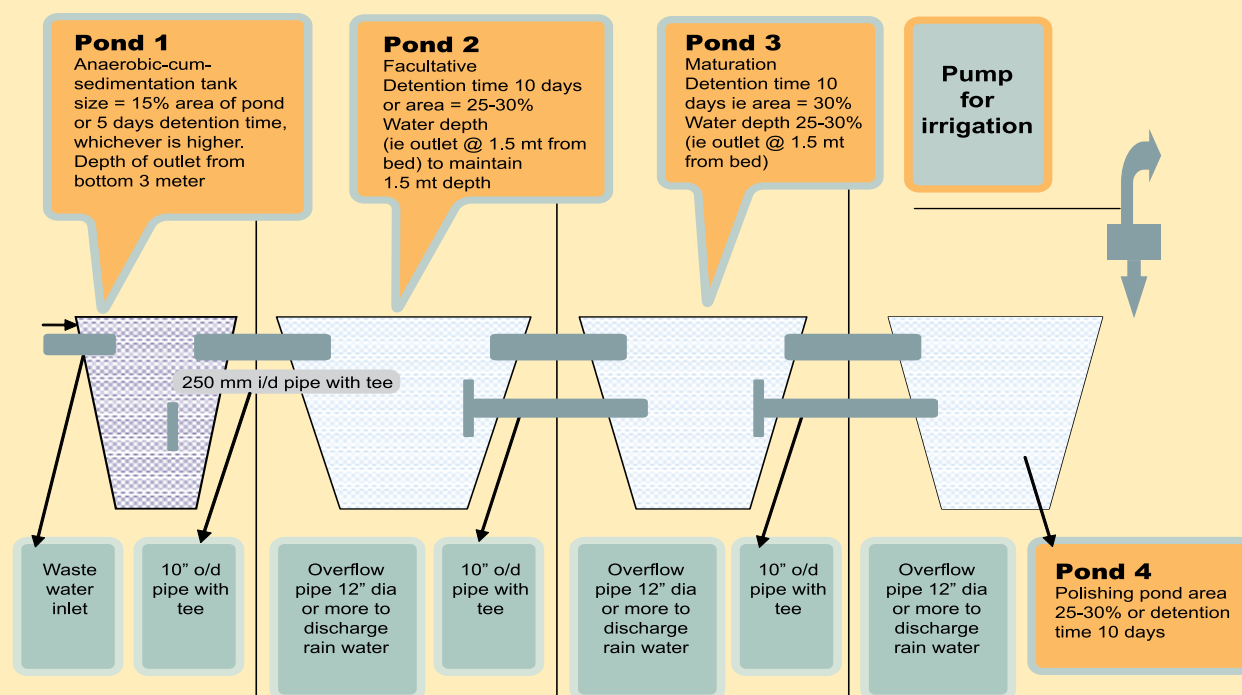
Maturation/Polishing Pond (2 Numbers)

In this tank, the overflow of the facultative pond is being discharged; in this phase any pathogen load will be reduced. The depth of water is kept at 1.5 m. The tank's outlet is fixed at 1.5 m from its bed to ensure that the water depth does not exceed 1.5 m. Its area should be 25 percent of the existing pond area.

Outflow

Normally, in addition to evaporation, treated water is absorbed into the pond. It is also used for irrigation purposes by farmers.

Flow Diagram of a Stabilization Pond



Sewerage Management in Peri-urban Villages of Punjab

The management of human waste in large villages, especially peri-urban villages, has been a challenge. With tightly congested habitation, it has become difficult for households to find space for properly designed septic tanks; most of the septic tanks are poorly designed and contaminate the environment, as their outlets are designed to feed into the open drain. The only available technical solution in these circumstances is a sewerage scheme, which transports the waste and treats it effectively. However, the experience of using these in other places, especially urban centers, has not been encouraging, as they are disposed with very limited or no treatment into water bodies.

The community-driven demand for a solution led to the creation of a Rural Water Supply and Sanitation Project in Punjab, supported by the World Bank, the Government of India, and the Government of Punjab. It has undertaken sewerage management projects in rural areas of Punjab and has effectively addressed the sanitation problem in these villages in a sustainable manner. Two such projects currently under operation—one in Khadoor Sahib village of Taran Taran district and the other in Baba Bakala

village of Amritsar district—offer the promise of pursuing similar effective sewerage management projects in other villages.

Both of these sites are large villages with religious significance; in addition to the residents, there is a huge floating population that makes regular visits for religious purposes. The houses are congested.

The technology involved in this project includes the collection of sewage from households through UPVC pipes, its transportation to a Sewerage Treatment Plant, where it is treated, and the subsequent drying of the sludge in a drying bed. Finally, the dried sludge is composted for use as fertilizer. These projects were planned and implemented by the Gram Panchayat Water and Sanitation Committee (GPWSC), with technical support provided by the Water Supply and Sanitation Department of the Government of Punjab. The operation and maintenance of these facilities has been contracted out by the GPWSC to private operators. A tariff of ₹60 is being collected from each household and is used to pay the O&M charges.

The basic details of the two projects are presented below:

Indicator	Baba Bakala Village	Khadoor Sahib
No. of households	1,628	1,479
Population	9,726	12,461
No. of sewer connections	1,265	850
Capacity of STP	850 KLD	1,400 KLD
Sludge drying bed	3	4
Composting pit	3	3
Sludge curing platform	1	1
Project cost	₹408 lakhs	₹424 lakhs
O&M expenditure	₹12.20 lakhs for 3 years	₹38 lakhs for 7 years

Source: Project documents.



GUJARAT

Innovative Animal Waste Management System of Joshipura Village

Joshipura village is located in Viramgam Taluka, of Ahmedabad district. It has a total population of 1,400 and includes 175 households. For years, this village has faced problems with animal dung, which lies scattered about, making the surroundings unhygienic.

The Gram Panchayat (GP), in consultation with village communities, identified a village wasteland in which to dump animal droppings. It built 77 cement-lined pits that were then allotted to households for an annual rent of ₹200 to 300. Care was taken to empty these tanks every year before the monsoon.

This GP had won the Nirmal Gram Puraskar in the year 2007-08. Shri Hargovindbhai Patel, President of the GP, reported that his group earns approximately ₹10,000 per year from this facility. Further, he added that no major sanitation-related disease had occurred in the village since it was bestowed the Nirmal Gram Puraskar. Joshipura Gram Panchayat has indeed set an example for many Indian villages facing similar sanitation challenges.

Source: CCDU, TSC, Gujarat.

Nurturing Sughad Students in Kishorgadh

Kishorgadh is a village of Idar Taluka in Sabarkantha district. A Health and Sanitation program is under way in this village targeting school children. It all started 10 years ago, when the teachers of Kishorgadh school launched an innovative initiative aimed at educating their pupils about the basics of cleanliness. Every day, they would identify the most *sugadh* student and announce this achievement in front of the entire class as '*Aajano Sughad Vidhyarthi*.' This recognition acted as an incentive for the children, who began competing with each other to receive this award. Gradually, the message of cleanliness also reached their families, prompting positive lifestyle changes. Shri T.K. Revasia, the school's Headmaster, is proud to report that students now have a basic sense of personal cleanliness. They have also pitched in to beautify their surroundings and together planted and nurtured a beautiful school garden. Thanks to the relentless efforts of teachers and children in generating awareness about cleanliness, the village won the Nirmal Gram Puraskar in 2007-08.

Source: CCDU, TSC, Gujarat.

When Waste Became a Blessing

Valod Gram Panchayat is located in Tapi district, Gujarat. It initiated a solid waste management program in 2006-07. As a first step in the program, every household was provided with two dustbins: one in which to store organic waste and another meant to hold inorganic waste. Self Help Group members were paid ₹100 per day to collect solid waste from every household. This solid waste was further segregated into organic and inorganic categories by paid workers at the zero waste management center. The organic waste was recycled and converted into manure. Within a period of two months, the Gram Panchayat had earned ₹93,000 by selling organic manure. Encouraged by these results, the district authorities planned to initiate a similar program in 90 more villages. In the first phase, around four thousand kilograms of compost was produced and sold at the rate of ₹5 per kg. For marketing, a memorandum of understanding (MoU) was signed between the district authority and the district's Forest Office, which agreed to purchase all the compost produced by this project. To cover the cost of waste collection in the long term, the Gram Panchayat imposed a daily tax of ₹1 per household, ₹2 per shop, and ₹10 per corporate/government office.

Source: CCDU, TSC, Gujarat.



WEST GODAVARI DISTRICT OF ANDHRA PRADESH

Moving Towards ODF Plus



West Godavari lies in the coastal region of Andhra Pradesh, with agriculture and pisci-culture as the main occupations. The district's efforts towards becoming zero-open-defecation got under way in 2003 with the creation of the District Water and Sanitation Mission, registered under the Societies Act. The DWSM evolved with the times, bringing into its fold NGOs to work alongside its staff, strengthening IEC for BCC, and recognizing the need and importance of training and capacity building of its staff and partner NGOs.

Community-led Total Sanitation Campaign (CLTSC)

West Godavari District received support for its endeavors in sanitation training and capacity building from the Water and Sanitation Program (WSP). These inputs helped the team to gain new levels of confidence and developed conviction among team members about the importance of the agenda and goal.

District Characteristics	
Headquarters	Eluru
Total area	7,742 sq km
Total population (2011)*	3,934,782
Male population (2011)*	1,963,184
Female population (2011)*	1,971,598

*Source: <http://www.census2011.co.in/census/district/132-west-godavari.html>

Administration	
Subdivisions	4 (Eluru, Narasapur, Jangareddygudem, Kovvuru)
Mandals	46
Gram Panchayats	888
Villages	901

Source: www.westgodavari.org/AboutUs/AboutUs.html

PATHWAY TO SUCCESS

The district's sanitation efforts gained momentum when Juvvalapalem became the first GP from the district to win the NGP

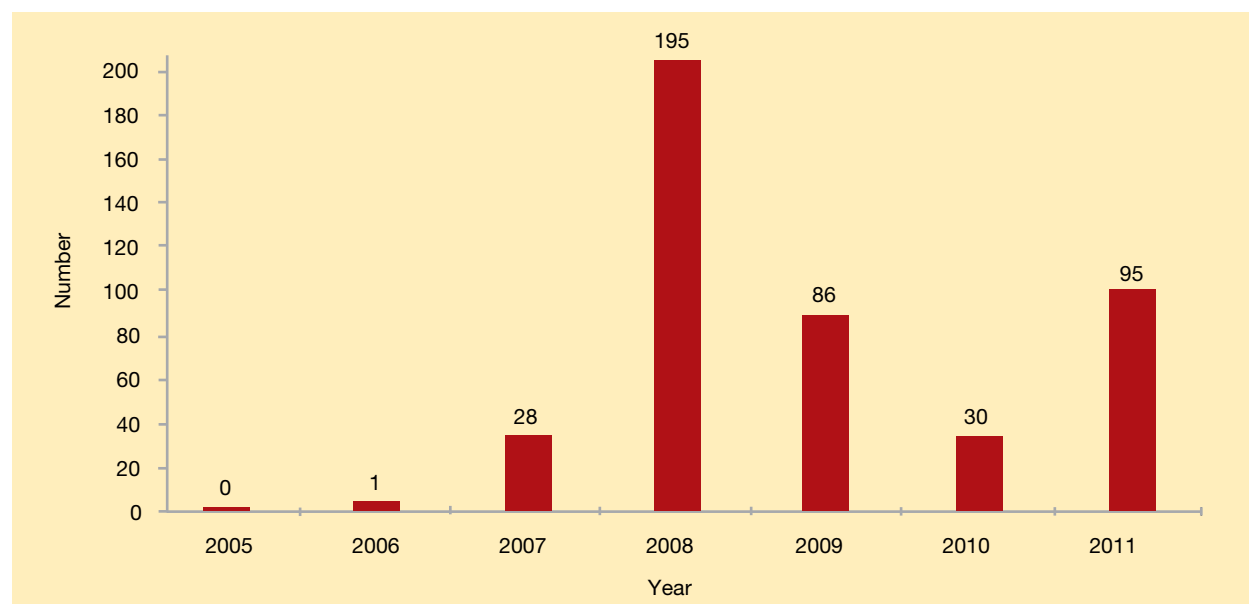
Of the 32 resource persons who participated in the training program, eight were placed at the Mandal level as district resource persons; they were designated as Nodal Coordinators and Mandal Coordinators. This strategy helped in reaching out to a large number of villages and developing a Mandal-level pool of resource persons. The Mandal Coordinators identified village sanitation motivators from each village and trained them in the processes and goals of CLTSC. Now, the district has village sanitation motivators, covering all Gram Panchayats (GP) in the district.

These district resource pools consist of a variety of persons, including Accredited Social Health Activist (ASHA) workers, GP secretaries, village youths, anganwadi teachers, etc. These members work on the agenda of sanitation and support the mission. All the members work on a voluntary basis and the Mission does not remunerate them. In addition to the training, an exposure visit to Haryana state in 2008 helped the team learn the various strategies adopted by the Total Sanitation Campaign (TSC) elsewhere.

West Godavari: NGP Performance

The district's sanitation efforts gained momentum when Juvvalapalem became the first Gram Panchayat from the district to win the NGP in 2006. This has had a triggering effect; indeed, since 2006, the number of GPs winning the NGP has risen (see Figure 1).

Figure 1: Annual Number of NGP-GPs in West Godavari District



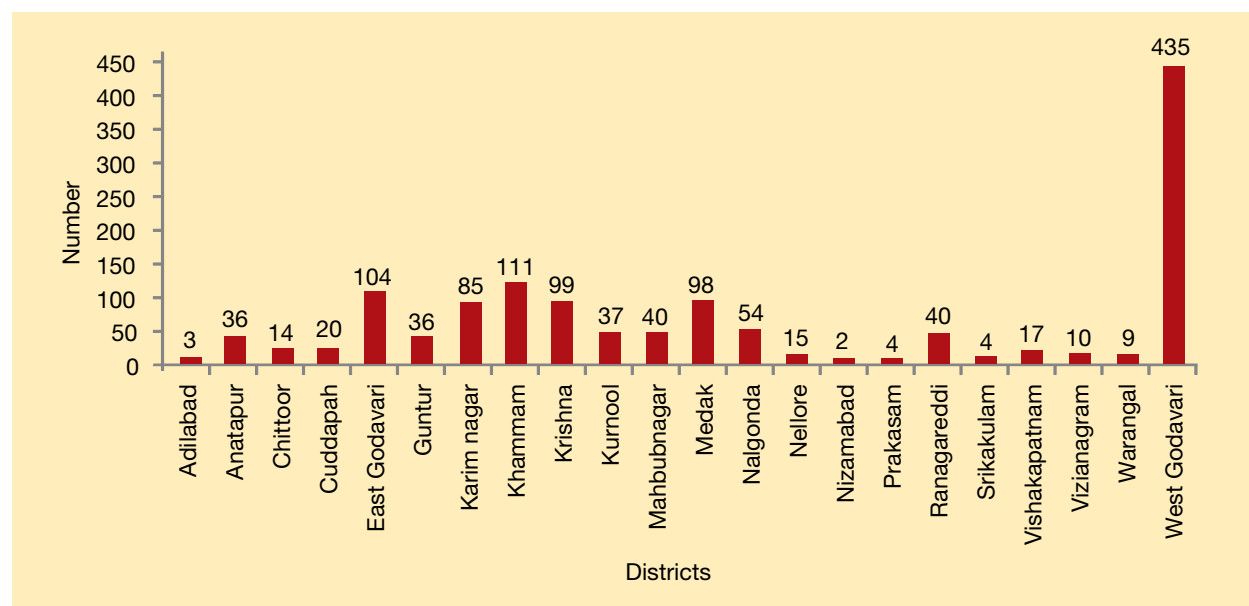


By 2011, close to half of the GPs in the district (that is, 49 percent of GPs, or 435 of 888) had won the NGP. The district holds the top position in the state for sanitation facilities (Figure 2).

Towards ODF+

The district took up the challenge set by the Chief Minister at Subhram Awards in 2008 and made a more determined effort to move the district towards ODF status.

Figure 2: NGP-GPs in Andhra Pradesh by District (2005-2011)



PATHWAY TO SUCCESS

It adopted the strategy of creating 'a model village' in each of its 15 assembly constituencies. To make the main village of the assembly constituency into a model village, it replicated the 'Juvvalapalem model' with modifications, where necessary (see Box).

Juvvalapalem Model

Juvvalapalem GP in Kalla Mandal adopted an integrated and holistic approach to sanitation. It addressed all the following vital issues of sanitation:

- Providing latrines (the Panchayat, through donations, constructed Community Sanitary Complexes for those who did not have IHHL).
- Ensuring an adequate water supply, both for domestic chores and for drinking water.
- Providing for maintenance of CSCs.
- Providing for collection of solid waste.
- Connecting drains/soak pits from houses to the main village drain.
- Monitoring committee and penalty system.
- Developing a fundraising system.

Providing for latrines

Emphasis is on constructing Independent Sanitary Latrines (ISLs). The Gram Panchayat, through subsidies and direct contributions from households, has constructed toilets. For households without ISLs, the Gram Panchayat constructed Community Sanitation Complexes (CSCs).

Features of the CSCs:

- Four to five units for men and females respectively.
- 24/7 water facility (water stored in open cement tanks).
- Well-ventilated and well-lit.
- Designated people for cleaning the toilets.

Ensuring adequate water supply, both for domestic chores and drinking water

The district has banned the use of underground water; therefore, surface water is the only source of water supply. Adequate water supply is ensured through the collection of surface water in 'cheruvu' (reservoirs). The collected water is de-silted before being pumped into overhead tanks. Water from overhead tanks is pumped through pipes to houses

Community Sanitation Gardens

Pedatadepalli, Gram Panchayat in Tadepalligudem Madal, has constructed seven Community Sanitation Complexes. All seven are developed as parks, and are popularly known as gardens. The sanitation complex is located within the park. In between the complex and garden are well laid pucca pathways. The garden areas of the complex are well maintained with flower beds, grass, and benches. The community sanitation complexes are open round-the-clock and have electricity connection and are cleaned daily by sweepers. Water for toilet usage is stored in cement tanks fitted with a tap. Water is released by the Panchayat for two hours in the morning and for an hour in the evening in all the seven parks simultaneously.



and community taps. For drinking water, Byraju and Nandi Foundations have set up community RO and UV water treatment plants. From these units, drinking water is made available at ₹4 per 20 liters.

Providing for maintenance of CSCs

Each Gram Panchayat is responsible for the upkeep of its CSC. These responsibilities include:

- Providing for regular cleaning of the community units by designated sweepers.
- Repair of toilet and complex fixtures, such as taps, doors, and buckets/containers.
- Cleaning of pits/septic tank, as and when required.

Gram Panchayat	No. of CSC/CSL*
Juvvalapalem	1
Pedatadepalli	7
Atili	10
Thangelmudi	1 under construction

* The documentation team visited four Gram Panchayats: Pedatadepalli, Thangelmudi, Atili, and Juvvalapalem.

Solid Waste: Money Spinner

The Gram Panchayat in Atili Mandal was submerged during the 2009 floods that affected Andhra Pradesh. The village remained submerged for four days. Clogged drains did not allow water to recede quickly. With the support of the district administration, the Panchayat cleaned its drains for the first time since 1970. As most of the flotsam and jetsam contained plastic carry bags, the Panchayat put a ban on their use. Hitherto, a system of household waste disposal changed from depositing refuse in designated places to door-to-door collection by sweepers.

For such door-to-door service, the Panchayat charges ₹15/month/household. The Panchayat collects the money through ration shops. A fee is charged to those households entitled to more than 8 kg of rice/month. Those holding ration cards under the following schemes are however exempted from paying the door-to-door waste collection fee:

- Single-member ration card-holders
- Annapurna/Antodaya scheme
- Ann Yojana
- HH in which the head is disabled

The system

The ration-shop owner is responsible for collecting ₹15 from every household, in addition to the value of their purchase. A separate receipt is made out to this effect. Through this levy on door-to-door solid waste collection, the Panchayat generates a revenue of ₹60,000 per month. For his service, the ration-shop owner is paid 10 percent of this revenue. The remainder is used to pay the salaries of sweepers, as well as to purchase and maintain cycle-carts, brooms, etc.

PATHWAY TO SUCCESS

Providing for the collection of solid waste

Gram Panchayats have made provisions for the collection of solid waste from households, either through door-to-door collection or by arranging for the placement of community bins in a common local. Each of the sweepers collects waste from his designated area and cannot trespass into another zone.

Panchayats provide either cycle-carts or bullock-carts for collection. The waste is dumped at a designated spot on the outskirts of the village. It is segregated by throwing bio-degradable waste and non-biodegradable waste at a certain distance from each waste dump. Non-biodegradable waste is burnt fortnightly.

Connecting drains/soak pits from houses to the main village drain

The liquid waste from houses is drained off through channels of drains that run from houses to the main village drain. For houses in which drawing up of the drain is not possible, soak pits are constructed.

Atili Gram Panchayat earned ₹30,000 in a year by penalizing the use of plastic carry bags at a rate of ₹30 per infraction. The penalty was withdrawn and the ban lifted after protests from local traders

The drains running from households to the main drain are free from solid waste, such as vegetable peels, plastic covers/carry bags, etc. Each household is responsible for cleaning the drains in front of the house daily, post-chores, to prevent clogs.

Monitoring committee and penalty system

Monitoring committees

To bring about behavior change—specifically, to cultivate the habit of toilet usage among community members—Panchayats have constituted monitoring committees. A monitoring committee includes members drawn from different village institutions, such as i) Panchayats, ii) SHGs, iii) Schools/Anganwadis, and IV) Law-enforcement agencies—Tehsildar (Police)/Lawyer.

Penalty system

Panchayats have instituted a penalty system. A penalty of ₹50 is levied on those caught practicing open-defecation or throwing waste in the open, that is, not in an identified dumping yard/bin. This penalty is mostly used as a deterrent, however. The Panchayat has at times directed the ration shop to delay distribution of rations to households not using toilets or temporarily disconnects their electricity supply.

Health Impact

According to officials, the district has seen a drop in the number of cases related to gastroenteritis. ANM, a health center managed by Byraju Foundation and Care Hospitals (Hyderabad), reports that the number of diarrheal cases has dropped over the rainy season from 30 to 40



Juvvalapalem Village: Cancellation of Bus Service

When Byraju Foundation and Care Hospitals opened a health center in 2001, the number of gastroenteritis cases was overwhelming. Every day, between three and four busloads of people were taken for referral to the District Hospital in Eluru. Initially, seats on these buses had to be booked in advance. With the improvement in general living conditions, the number of cases dropped, ultimately leading to the cancellation of the bus service.

cases per day to 1 to 2 per month. Similarly, health workers have noted a significant drop in vector-borne infections, especially malaria. This significant improvement in general wellbeing is attributed to improved levels of cleanliness among the populations.

Future Course

- District officials are working towards developing a model for better management of SW. The district has approached corporate houses for setting up vermin-compost units in GPs.
- Seek an arrangement to convert existing drains into pucca drains.
- Encourage the use of IHHL and reduce the burden of CSC maintenance.
- Advocate for a ban on the use of plastic carry bags.



WASTE MANAGEMENT IN RURAL KURUKSHETRA

‘Kachre Se Kamaee’*



A few decades ago, waste in rural areas was purely organic and was dumped in the backyard, with nature taking care of the rest. Today, the increasing use of plastics and non-recyclable materials meant to ensure easier lifestyles has resulted in a huge increase in both the volume and complexity of waste composition.

The government, which is responsible for managing this waste, is hampered by the lack of sufficient manpower and resources and is hence unable to handle this responsibility effectively. Private contractors might tend to neglect the social and environmental considerations of waste management.

However, given the magnitude of the challenge, various participatory waste management techniques must be adopted, following certain principles:

- Waste must be reduced, reused, or recycled.
- Decentralization should be an effective component to waste management.
- Community participation in the management process is necessary.
- Waste cannot simply be dumped somewhere, it has to be properly treated. Methods such as composting involve a simple process and can be accomplished without heavy investment.

The objective of a participatory approach to waste management would be:

- To achieve sustainable zero-waste management.
- To maximize resource recovery from waste through user-friendly and eco-friendly reusing and recycling practices.
- To keep the area neat, clean, and beautiful.

Kurukshetra district is situated on the Delhi-Chandigarh road; it includes five community development blocks with 378 Gram Panchayats.

*Earning from waste

PATHWAY TO SUCCESS

'Kachre Se Kamaee' was launched on a pilot basis in the village of Sanwla, given the Panchayat's willingness to pilot the initiative. The project was carried out with the involvement of the Sarpanch, Gram Panchayat members, and the entire village community

The Total Sanitation Campaign (TSC) was taken up in the district on a mission mode with mass participation, using the principles of the Community-led Total Sanitation (CLTS) approach. This led to the award of 250 NGPs and the achievement of nearly 100 percent ODF status in rural Kurukshetra. Today, only around 5 percent of households remain without toilets. Following the success of the sanitation campaign, and in a bid to make the villages even cleaner and more sanitary, the next step forward was to tackle the issue of solid waste management to sustain the Nirmal Gram status of GPs.

Project Approach

As a first step, district motivators were provided training in solid waste management, in addition to being exposed to different best practices of SWM as carried out elsewhere.

The project 'Kachre Se Kamaee' (Earning from Waste) was launched on a pilot basis in the village of Sanwla, given the Panchayat's willingness to pilot the initiative. The project was carried out with the involvement of the Sarpanch, Gram Panchayat members, and the entire village community. Initially, a preliminary community meeting was convened in the village in which a large number of villagers participated; this was followed by meetings at the ward level. Based on the response, a door-to-door campaign was then initiated.

To start with, the whole village was cleaned and sanitized, triggering a response among villagers, who were able to appreciate the contrast between 'before' and 'after' and expressed the desire to maintain the new state of cleanliness. Families were educated about the benefits of using dustbins in every household. Two additional workers were deployed and a tricycle was used for the collection of domestic waste, in addition to the existing



Project Outlay of Village-level Zero-based Solid Waste Management Project for the Population of 2000

Particulars	Quantity	Cost (₹)
Non-recurring expenses		
Cost of shed construction of 36' x 24' (Non one-time investment)	1	1.30
Cost of tools and accessories (cleanliness aids such as hand gloves, masks, soaps, tasla, kassi, panajli, etc.)	2	0.05
Tricycles	2	0.20
Toilet	1	0.022
Subtotal		1.572
Recurring expenses		
Payment to workers for handholding support and handling of solid waste, like collection, transportation, segregation @ ₹4,500 for (9 x 9,000) months	2	0.81
Supervisor on sharing basis @ ₹10,000 pm for 5 GPs (9 x 2,000) months	1	0.18
Misc. expenditure @1,000 per month		0.09
Subtotal		1.08
Monthly expenditure		0.12

'Safai-Karmi' (cleanliness worker) employed by the Panchayat to clean streets and drains. A commitment was sought from the GP for a 20 percent share in fixed capital investment. Major expenses included the construction of a shed for the storage and segregation of solid waste, purchasing a tricycle for the collection of waste from households, and outfitting workers with other equipment, such as gloves, boots, and masks.

The waste was collected and taken to the shed for segregation. The biodegradable waste was divided into two categories: the first was used in the production of vermicompost, while the other was used for making household items.

Non-biodegradable waste was further segregated into different categories—plastic and plastic goods, polythene, glass and glass bottles, tetra-

PATHWAY TO SUCCESS

Monthly Income from the Project

Particulars	Quantity	Revenue
Minimum @ ₹0.50 per day per family, i.e., ₹15 for door-to-door waste collection	400 families	6,000.00
Minimum @ ₹2.00 per day per shop, i.e., ₹60.00 for collection of waste	15 shops	900.00
Minimum @ ₹3.00 per day per institution/vendor/govt., non-govt, bank and others ₹90 for collection fee	2 institutions	180.00
Minimum @ ₹5.00 per day per private clinic, i.e., ₹150 for collection of waste	2 clinics	300.00
Sale of recyclable/reusable @ ₹0.50 per day per family for 30 days	400 families	6,000.00
Sale of vermicompost @ ₹0.10 per day per family for 30 days	400 families	450.00
Total		13,830.00 (say, ₹0.138 lakhs)

Note: The income from door-to-door collection is a tentative amount and is not likely to be realized for about six months.





The biodegradable waste was divided into two: the first was used in the production of vermicompost, the other for making household items

pack covers, thermacol, rags, etc. — and sold to the *kabadis* at market rates. Paper waste was used for papier-mâché and for preparing usable and decorative items for sale.

The pilot proved successful, and the village is now clean, with the village community managing the garbage on its own.






सबसे बाले गंदे पानी
विकास करने हेतु
बाले केकर पानी की विकास अधिकारी
(समय ग्राहक) का सार्वजनिक मालिकों से
विचारना मायका बनाकर निम्नान के पानी
को घर-घर को छकटुवा न होने दे।
मायको की निम्नलिखित साफवई करे।



MADHYA PRADESH

Nirmal Gram Model Training Centers



Madhya Pradesh state has been implementing Nirmal Bharat Abhiyan (NBA) since 2000. As per NBA MIS, the state household toilet coverage as of July 31, 2012, was 79.83 percent. Around 2,068 out of 23,075 GPs have received Nirmal Gram Puraskar (NGP) awards. Until now, state-sponsored capacity-building activities have been held in state training centers, a fact that restricted the participation of key stakeholders in these sessions—especially grassroots functionaries, lower tier PRIs, and community leaders. Moreover, these trainings could not showcase real field situations and experiences impacting the learning. Hence the state proposed the innovative idea of undertaking capacity-building activities through selected model village training centers. In the first stage, the state selected eight model village training centers from as many districts having exhibited good performance in terms of sanitation outcomes under the Total Sanitation Campaign (TSC) program.

Criteria for Selection of Model Village Training Centers

- NGP awarded Gram Panchayat, which has sustained NGP status.
- Closer to district headquarters for easy access.
- Minimum infrastructure for undertaking trainings (training hall, accommodations for participants with bathing and toilet facilities).
- Willing and capacitated Gram Panchayat body.



PATHWAY TO SUCCESS

The Nandia model village training center developed training material for each session and collected various video resources and print hand-outs, including good audio pictures for training

Various Stages of Setting Up Model Village Training Centers

Conceptualization and government approval

This idea was conceptualized by the TSC's State Program Officer in 2010. It was finalized based on feedback from the State Water and Sanitation Mission (SWSM) and district sanitation committees and was then approved by the SWSM. Later, it was sent to all districts in the form of a circular promoting further action.

Identification of model village training centers

Initially, the SWSM had sought a list of potential model village training centers from various districts based on set criteria. Later, a team from the state undertook the rapid assessment of all potential model village sites. Based on this assessment, eight model village training centers from as many districts (one center per division)

were approved and the final list has been shared widely across all districts.

Preparation of training plans and training modules

A two-pronged strategy has been adopted by the state. While the state CCDU agreed to prepare standard training modules, districts and village training centers offered to develop training material, along with hand-outs and teaching aids. Some centers did excellent work in this respect. For example, the Nandia model village training center developed training material for each session and collected various video resources and print hand-outs, including good audio pictures for training. Similarly, Hoshangabad district and its training center, Chillai, produced various teaching aids (F-chart, toilet modules, etc.) to be used in the course of training.

Pooling up resource persons and master trainers

All training centers identified key resource persons and trainers drawn from within each Gram Panchayat, from neighboring Gram Panchayats, and from blocks in consultation with respective districts. Some districts have deputed district and block coordinators as well as brand ambassadors to serve as resource persons for undertaking training sessions. In some centers, the Gram Panchayat's President, ward members, Secretary, and community leaders took on the responsibility of facilitating training sessions and field visits. For example, Mr. Shankar Singh Pariyar, the former President of Nandia Gram Panchayat, was nominated as Director-cum-Chief Trainer of Nandia village's training center.

Setting up systems and procedures

All centers have established rules and regulations for undertaking training. Every center opened a separate joint bank account in the nearest nationalized bank for this purpose and determined an appropriate training fee per participant per day, based on the cost of living (between ₹650 and 1,500). They also set up a separate committee to facilitate training, including logistics. Nandia training center paid ₹10 per participant to the GP for creating capital funds and meeting other expenses.

Undertaking various capacity-building activities

Prior to undertaking trainings, all key resource persons and master trainers received instruction with respect to various training methods and techniques, as well as in the preparation of course content, organizing field visits, and state CCDU. Further, in consultation with districts and trainings centers, the state prepared a training calendar for the first three months. To kick-start this program, the state allocated 10 to 12 two-day trainings for each of the four centers.

Key Achievements

- Out of eight training centers, four are now up and running. The remaining four are expected to be functional in the next three to six months.
- Most centers have developed training material, hand-outs and teaching aids, etc. that are required for training grassroots functionaries and community leaders in creating Nirmal Gram Panchayats (NGPs).
- Around 1,140 persons were trained by four village training centers in creating NGPs.

All training centers identified key resource persons and trainers drawn from within each Gram Panchayat, from neighboring Gram Panchayats, and from blocks in consultation with respective districts

- Some training centers began hosting other sectors' training in order to create a corpus fund for attaining self-reliance.
- The skills, knowledge, and linkages among local key resource persons improved immensely as a result.
- This program is creating regular employment and these centers have become the source of additional income for some SHGs, who are entrusted with the responsibility of arranging meals for the participants.

Factors Contributing to the Successful Operation of Training Centers

- Pro-community government policy/order.
- Willingness of districts and blocks to train field functionaries.
- Timely follow-up and support by the respective district sanitation units.
- Competent GP bodies and available local resource persons.
- Practical exposure to real field environments (NGP GPs).
- Available physical infrastructure (training hall, accommodations, etc.).
- External financial support for the development of infrastructure.

PATHWAY TO SUCCESS

All centers have started collecting training fees from participants in order to meet training expenses and other operational costs, in addition to creating corpus funds for future needs. They have also started creating demand for more sector and non-sector trainings from other departments

Key Lessons Learned

- The centers located in close proximity to towns with easy access to resources are able to run training sessions more effectively and attract more participants.
- The centers that employ resource persons from within the GP or from neighboring GPs function effectively.
- The GPs having adopted a systematic approach to and processes for achieving sanitation outcomes (ODF, Usage, NGP, etc.) and maintaining NGP status have succeeded in creating positive learning environments and sustaining enthusiasm among participants throughout the sessions. In addition, they were able to create demand for subsequent trainings.



- Continuous training and participant interaction with the communities of model training Panchayats create constant pressure on communities and GPs to maintain their NGP status and to continually make improvements to environmental sanitation.
- Training centers managed by the GP and local resource persons seem to function in a more effective manner.
- The workload of districts and blocks when it comes to training grassroots functionaries has been substantially reduced.

Self-reliance and Replicability

All centers have started collecting training fees from participants in order to meet training expenses and other operational costs, in addition to creating corpus funds for future needs. Further, they have started creating demand for more sector

and non-sector training from other departments. The state and concerned districts have planned to develop the local capacities of these centers in an effort to minimize operational costs and to run the training more effectively. Some districts are also planning to provide capital funds for the development of infrastructure, which might create demand for both sector and non-sector training.


Based on these experiences, the state is planning to establish more training of this sort throughout the state and to create at least one model village training center per district.

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KERALA

‘Thelima’: A Workbook for School Children on Sanitation, Health, and Hygiene Education



‘Thelima’ is an activity-oriented workbook for school children on school sanitation, health, and hygiene education within the framework of the TSC that was used in the curriculum. It was initiated by Suchitwa Mission and Sarva Shiksha Abhiyan (SSA), Kerala, as part of a program on School Sanitation for developing a healthy society focusing on children. Suchitwa Mission and SSA, Kerala, jointly prepared the workbook. The content of ‘Thelima’ is designed to fit with various chapters of the prescribed curriculum of Classes V-IX and was published during academic year 2009-10. The chapters are titled: 1. I am clean; 2. Water is precious; 3. Pollution—a great menace; 4. Myself and my friends; and 5. Our safety in our hands. The thematic presentations of the workbook center on the topics mentioned earlier with simulated discussions, topics for school projects and experiments, knowledge dissemination, as well as activities for attitudinal change and for developing skills. It can be used as a handbook for teachers and as a calendar of activities for students.

The Objectives

- Generate and develop health and hygienic values among children.
- Create an environment for the sustainability of achievements in health and sanitation.
- Motivate children to embrace attitudinal changes.
- Create awareness among children about the protection and proper utilization of natural resources.
- Impart some skills with respect to the related themes.

Initiation

The program was initiated by the Government of Kerala in June 2009 while planning a unique strategy for School Sanitation. The state government’s Suchitwa Mission conceptualized the idea and developed the workbook in association with Sarva Shiksha Abhiyan and other resources available in the state. Developing the content was

PATHWAY TO SUCCESS

A group of master trainers was developed at the state level to train the teachers of all schools at the district/block level on implementation of the activity. The trained teachers implemented this activity at the school level

a collaborative effort involving officials and staff in the Department of Rural Development, the faculties of SSA, the Department of Community Medicine, the Government Medical College, TVPM, and NGOs working in the field of health and sanitation. The Department of Local Self-Government (Rural Development) and the Department of Education supported this initiative.

Important steps of the process are:

- Idea germination at Suchitwa Mission.
- Primary consultation with SSA.
- Discussion between the Minister for LSGD and Minister of Education and policy agreement for a collaborative effort to develop such a work group.
- Government decisions and approvals.
- Formation of a core group consisting of officials in the Department of Rural Development, the Faculties of SSA, the Department of Community Medicine, the Government Medical College, TVPM, and NGOs working in the field of health and sanitation.
- Theme identification workshop.
- Identification of core faculties to develop and prepare the workbook based on core group decisions.
- Workbook preparation workshop.
- Dissemination workshop for master trainers of SSA.
- Final approval of content.
- Printing of the workbook and circulating to government schools.
- Teachers and children in Classes V-IX use the workbook as part of curriculum activities.

The program was implemented by the Education Department under the leadership of SSA and CCDU. The Government of Kerala provided workbooks for all children in Classes V-IV for the academic year 2009-10. A group of master trainers was developed at the state level to train the teachers of all schools at the district/block level on implementation of the activity. The trained teachers implemented this activity at the school level.

The program focused in particular on school students from Std. V-IX. Teachers were provided the training necessary for implementing the program. Suchitwa Sena, including teachers and students, were formed in schools. This program primarily benefits students, but the society as a whole gains in the process.

Suitability of the Initiative

The 'Thelima' workbook has been used in schools for the last two years. Training has been imparted to teachers for implementing the program and it is being regularly monitored by SSA.

Scale of the Activity

The program is being implemented in schools all over the state, which have started to include this handbook in their curriculum. Taking the demand from English medium schools into account, efforts have been made to develop a similar English version of the work. There is scope to prepare such workbooks for use all over the nation in various local languages.

‘Thelima’ has been integrated into the school curriculum to ‘catch students while they are young’ with the objective of inculcating good practices in the areas of health, hygiene, and sanitation among a new generation. Since the ‘Thelima’ workbook has received government approval, its implementation and the dissemination of its core content does not require any additional effort on the part of users. Hence it is a value-added effort in the field of capacity development.

Key Factors Behind this Best Practice

- Political decision for a collaborative effort by two departments.
- Effective consultations.
- Joint intellectual contributions by a team of officials, faculties, and practitioners in the field.
- Ownership by the implementing department (Education).
- Content connects to related topics in textbooks, allowing students to correlate and think in an integrated manner.



Lessons Learnt

- School health and hygiene education will be successful if they are integrated into the curriculum.
- Quality materials are needed to support the program.
- Effective coordination and convergence elicit the best outcomes.

Other Aspects

In addition to books, soft copies of the materials were made available in electronic form to all the schools and master trainers, which was found to be very useful for training and orientation purposes. The Government of Kerala has commissioned a study by an independent agency to evaluate the impact and usefulness of the initiative overall.

The English and Malayalam version of the workbook is available at the official web site of SSA–Kerala
<http://ssamis.com/web/> or www.keralassa.org



LUCKNOW

Kachra Lao, Biogas Ley Jao*



Waste is all around us. It comes from homes, kitchens, markets, animals, farms, etc. There exists a dire need to consume waste productively. The Government of India's animal waste from a livestock population of 485 million in India contributes excess nutrients, pathogens, organic matter, solids, and odorous compounds to the environment (Ministry of Agriculture 2006). Hence there is a need to focus on animal waste management, along with other sanitation-related issues. The Total Sanitation Campaign (TSC) has allocated 10 percent of its budget for undertaking activities related to the safe disposal of solid and liquid wastes. It has been established that the anaerobic (without oxygen) decomposition of organic waste leads to methane production, and methane is a useful fuel. As such, the large-scale availability of cow dung and other organic waste in rural areas can be used to produce methane gas in an organized way. It is estimated that given the existing cattle population, India can produce

enough methane gas to entirely replace LPG and kerosene in cooking, and can use it as a substitute for petrol in transportation vehicles. In terms of calorific value, one kg of methane gas is more or less equal in energy content to one kg of petrol, LPG, kerosene or diesel. Moreover, the byproduct can serve as excellent organic manure, doing away with the need for expensive chemical fertilizers that, once again, require LPG as raw material.

Description of Best Practices

The Bio-energy Cell in Lucknow's Department of Planning, in collaboration with UNICEF, developed a solid waste-based biogas system in 2008 that offers an effective solution to the problem of managing solid wastes. This simple technology, blended with user-friendly operation and maintenance features, is attracting rural and urban masses interested in its wide-scale adoption. In the new bio-energy mission model, it is possible to accelerate the natural anaerobic process by putting

*Bring waste, take back biogas

PATHWAY TO SUCCESS

There is a need to focus on animal waste management, along with other sanitation-related issues. The TSC has allocated 10 percent of its budget for undertaking activities related to the safe disposal of solid and liquid wastes

organic wastes (manure and vegetable matter) into insulated, air-tight containers called digesters. All kinds of agro and other organic household waste are collected and fed into the bio-digester. In this model there are 10 digesters, each with the capacity of 200 kg of waste per week, which implies that 2,000 kg of raw material can be fed to these digesters on a weekly basis. After filling the required quantity, the bio-digester is sealed with

a pre-fabricated dome of inert materials. Initially, after four or five days, the gasification begins under anaerobic conditions. This gas is composed of 65 to 68 percent methane and 31 to 33 percent carbon dioxide, along with hydrogen sulfide (H₂S) and moisture (1 to 2 percent) as traces of ammonia. However, the gas is treated by passing it through lime water to remove carbon dioxide, then over iron fillings to remove H₂S before it can be used. This methane gas, similar to natural gas, can be used for heating, light, stored for future use, or compressed to power heat engines. Around 50 percent of feeding material (after gasification) is collected in the outlet of the plant; it is called the biogas slurry. It is a good fertilizer, rich in nitrogen and phosphorus. This type of plant was established at village Mishrawallia (two units) in Ballia district in 2008 and in village Mullahikhera (one unit) in Lucknow district in 2009 on a pilot basis with financial support from UNICEF and under the technical coordination of the Bio-energy Mission Cell, Department of Planning, Uttar Pradesh. Both plants are functional and their O&M are ensured by the user groups.



Advantages Over Other Models

Bio-energy Mission Model	Other Existing Biogas Models
Easy maintenance and cleaning	Difficult to maintain and clean
Expected life is approximately 20 years	Life expectancy is only three to four years
No leakage as dome is made of FRP	Leakage is found as dome is made of iron
Biogas production is uniform, not affected by season shortage	Varies with season (excess production in summers and less in winters)
No bad odor emitted, as only 20 percent cow dung is required	Strong smell
80 kg gas/day produced with weekly feeding	Gas produced is significantly low
Anaerobic decomposition hence 75-80 cm water table pressure created	Aerobic decomposition 4 to 5 cm water table pressure created
No moisture on burner	Moisture comes over burner very often
Hydraulic Retention-flow Time (HRT) is only 48 to 72 hours	Hydraulic Retention-flow Time (HRT) is about 45 days
Inter-digester linkage possible	Inter-digester linkage is not possible

Benefits of the Biogas Plant

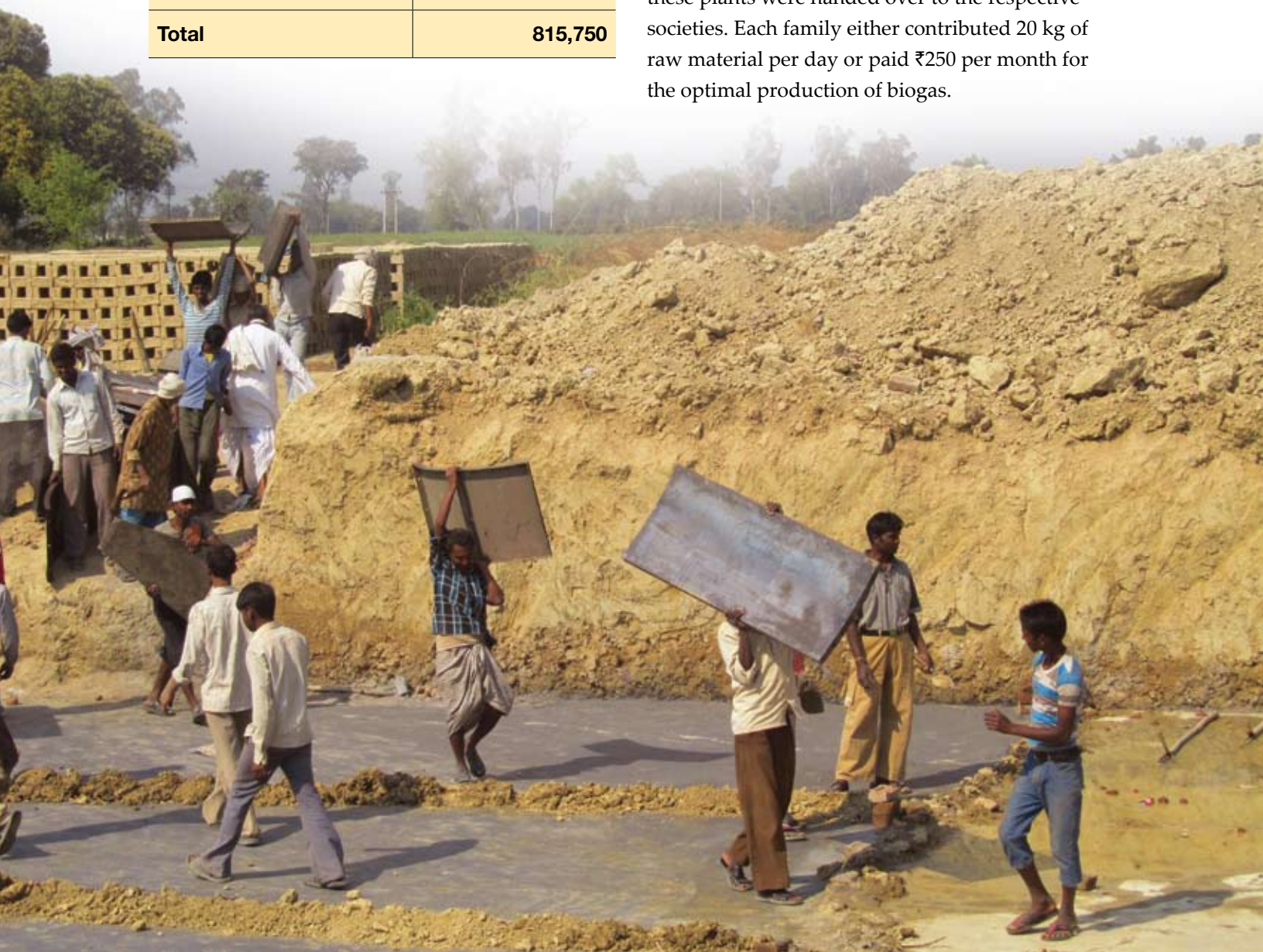
- With the proper management of animal and other agriculture/organic wastes, the village will be clean, leading to better health and hygiene.
- Conversion of organic waste into methane and its use as fuel will lead to energy security because fossil fuel is not going to last for more than 30 or 40 years.
- Dependence on electricity for lightening can be reduced substantially.
- Normally, aerobic decay of organic waste leads to emission of greenhouse gases, such as carbon dioxide or carbon monoxide. The process of methonization reduces greenhouse gas emissions and helps in arresting depletion of the ozone layer. This is likely to earn carbon credits.
- These kinds of plants can be easily set up and operated at the village level and can be managed by women self-help groups or local entrepreneurs. Since the product has a captive market, the plant is bound to be economically viable and it can also generate employment opportunities for a large number of people.

Cost of the Bio-energy Mission Model of 10 cum

Land	Community Contribution
Cost of shed	60,000
Cost of equipments	660,000
Gas stoves and lamps	60,000
Miscellaneous expenses	20,000
Monthly recurring expenses	15,750
Total	815,750

Community Participation

Communities are involved from the planning stage of the project. Around 15 to 40 families were involved under each 100 cum biogas plants. In total, 90 families are benefiting from three community biogas plants commissioned by the Bio-energy Cell. The land required for each plant has been donated by the community. Further, the community had contributed 20 percent of the capital cost of the plant in the form of cash, labor, and material. Every user community had been organized and registered as a society. Later, these plants were handed over to the respective societies. Each family either contributed 20 kg of raw material per day or paid ₹250 per month for the optimal production of biogas.



Sustainability

The Bio-energy Cell had trained the selected people in the operation and maintenance of biogas plants. Further, it had facilitated every society to build strong backward and forward linkages with various government programs and banks. This enabled the societies to mobilize financial resources for various income generation programs (purchase of livestock, vermicomposting, etc.). Two out of three community biogas plants are well managed by the community. The third plant is not producing optimal biogas due to irregular feeding of the biogas digester. However, the Bio-energy Cell is planning to strengthen community actions and ownership through various means.

Replication

Many officials, communities, and NGOs have started visiting these pilot plants and were fully convinced with their results. The Bio-energy Cell additionally designed a family model costing ₹31,500 per unit. Under the TSC program, Uttar Pradesh had approved both these models (community and family-size models) and issued a government order to construct similar kinds of plants under the TSC program. Some states (Tripura, Meghalaya, Gujarat, Andhra Pradesh, Tamil Nadu, Kerala, Pondichery, etc.) have started replicating this model.

Key factors Behind the Success of this Best Practice

- Active support of technical agency, Bio-energy Cell, Uttar Pradesh.
- Financial support from UNICEF.
- Operation and maintenance by users.
- Multiple benefits.

Challenges and Learnings

- The biggest challenge is how to mobilize the capital cost (8 to 10 lakhs per community plant) for a community biogas plant. Even more difficult is mobilizing a 20 percent community contribution.
- Another challenge is ensuring the operation and maintenance of community plants in terms of collection of raw material for regular feeding of biogas digester, meeting repair costs, etc.
- Though this plant can run with 20 percent cow dung and 80 percent agro waste, households who do not have any livestock are not able to collect even 20 percent cow dung on a regular basis, which finally affects the functioning of the biogas plant.
- The community biogas plant is well managed in instances where the user community developed strong backward and forward linkages.
- Biogas from the community plant, when supplied to households for cooking through long pipelines, has cost implications in addition to difficulties related to pipeline maintenance. Alternately, when supplied for lighting through wire, the plant is functioning efficiently with reduced O&M costs.

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MELLI DARA PAIYONG GRAM PANCHAYAT UNIT, SIKKIM

Solid Waste Management

Mellidara Gram Panchayat Unit (GPU) is in Malli Block of South Sikkim District and is one among the 165 GPUs in the Sikkim State. It has an area of 13.5 sq. km and a population of 6,333, according to a survey conducted in 2006. There are 1,240 households in this GPU, of which 258 households belong to the Below the Poverty Line (BPL) category. This GPU was awarded the Nirmal Gram Puruskar (NGP) in 2007 by the Government of

India. The GPU area is free from open defecation with every household having a toilet and using it. Mellidara has a market area with several shops and establishments and waste management started becoming an issue with significant increase in solid waste generation in each locality. It became a major environmental issue with the waste getting dumped indiscriminately at several locations in the villages.



Since Melli Bazaar is a small town and the quantum of garbage produced is not very high, daily collection is not required. Hence, garbage is collected three times a week, on Monday, Wednesday, and Saturday

The Beginning

After the attainment of the status of Nirmal Gram, the Gram Panchayat strongly felt the need of solid waste management. Managing the garbage of Melli Bazar, the market area of the GP, became a challenge. Earlier the responsibility of waste collection was with the Urban Development and Housing Department, Government of Sikkim. In 2009, the Gram Panchayat decided to take up this responsibility. The GPU decided to levy a monthly garbage fee on the basis of type of residence or the enterprise. The GP was supported in this venture by the Indo-Swiss Project, Sikkim and the Rural Management and Development Department by sponsoring a utility vehicle for the transportation of waste.



Collection of Waste

Since Melli Bazaar is a small town and the quantum of garbage produced is not very high, daily collection is not required, unlike in bigger towns. Hence, garbage is collected three times a week, that is, on Monday, Wednesday, and Saturday. The garbage is collected in a door-to-door manner. The Gram Panchayat has put in a lot of effort to educate people about the need and process of segregation of garbage at source both in the town area and villages. For the purpose of source segregation, the Gram Panchayat launched a very ambitious mission, a mission to make the GPU 'Solid Waste Free by 2011'. Under this mission, the Lower Paiyong ward was chosen for pilot mode. Two garbage collection bins were distributed to every household for segregation. At the launch of the mission, the area MLA, Smt. Tulshi D. Rai, urged the women of the ward to educate their children about the importance

of garbage management. The result is quite satisfactory as people have started following the practice of segregation at source, which further helps to reduce the cost involved to segregate it at the management unit. The collected waste is transported to the solid waste management unit at Lower Paiyong, which is three kilometers away from Melli Bazaar. The vehicle provided by the project is used in transporting the waste.

Treatment of Waste

The Gram Panchayat established a 'Solid Waste Management Unit' at Lower Paiyong in consultation with Maple Orgtech India Ltd, a private company, in 2009. The Unit has been set up with two purposes in mind:

- Recycle the waste and produce something useful out of it.
- Generate revenue from it.



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The non-biodegradable part of segregated waste is stored separately in the SWM Unit and sold when it becomes a saleable quantity

In the SWM Unit, the waste is further segregated manually by the workers. The non-biodegradable part of segregated waste is stored separately in the Unit. They are sold when it becomes a saleable quantity. There are buyers for metal, glass, paper, plastic, and so on. Sometimes the segregated non-degradable such as plastic materials, metal pieces, and empty bottles are sent to Siliguri for further processing and recycling.



The biodegradable waste is composted in the work sheds by keeping them in heaps and by adding inoculums. It takes about 45 days for the waste to compost in the aerobic composting method and it is watered regularly for retaining moisture. The composted material is sewed manually to separate manure from other particles. The manure obtained is packed in 30 kg bags and sold to farmers and other customers.

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Presently, the solid waste of Melli Bazar area is quite efficiently managed, which is evident in the clean streets of the bazaar area. The residents claim that it is now one of the most well managed bazaars as far as garbage management is concerned

It is estimated that about 13 tonnes of waste is collected monthly in this SWM Unit from which about 1.5 tonnes of compost manure is produced. The selling price of compost manure is ₹6 to ₹10 per kg. The GPU is in contact with ICAR for advisory support in improving the quality of compost. It is expected that the Agriculture Department of the Sikkim Government will become a regular customer of the compost for their gardens.

The rejects/inert waste after composting is transported to a dump site outside the village, once a month.



Financing

The GPU has been able to construct the Solid Waste Management Unit with the financial support from South District Zilla Panchayat, prize money of Nirmal Gram Puraskar and Indo-Swiss Project Sikkim (provided vehicle for garbage collection). In order to sustain the project as well as to inculcate collective responsibility, the GPU has started collecting a nominal charge from the residents as garbage fee. A fee of ₹50 and ₹30 per month is collected from an enterprise and a household, respectively. The revenue from sale of compost is about ₹1.25 lakhs annually. The monthly expenditure of the SWM Unit is about ₹25,000, as reported by the GPU President.

Staffing

One supervisor and two helpers have been assigned the task of managing the SWM Unit with wages of ₹3,000 per month by the GPU. The President and staff of the GPU closely monitor the functioning of the program. It is the able leadership of Mr. Ganesh Kumar Rai, current GP President, that is a reason for the successful functioning of this Unit.

Conclusion


Presently, the solid waste of Melli Bazar area is quite efficiently managed, which is evident in the clean streets of the bazaar area. The residents claim that it is now one of the most well managed bazaars as far as garbage management is concerned. Further, people have got sensitized and become aware of the solid waste generated at their house and its proper disposal. The GPU has plans to expand this Unit by collecting and transporting waste from other villages of the Gram Panchayat and developing the plant site into a garden with a coffee shop.





HOSHANGABAD DISTRICT, MADHYA PRADESH

Fixing Force Lift Pumps in Handpumps in Schools and Anganwadis to Ensure Adequate Water Availability for Toilets and Other Uses



Many studies and assessments have indicated that toilets in schools throughout this district are either not used optimally or are poorly maintained, mainly due to a lack of continuous water supply. Though the majority of these schools had borewells fitted with handpumps, carrying water from the pumps to the toilets has proved difficult for many school children. Consequently, school toilets and urinals are often unsanitary. In Hoshangabad district, the community of Madhya Pradesh came up with the innovative idea of installing Force Lift Pumps in schools and anganwadis in an effort to provide adequate and continuous tap water for drinking, flushing toilets, and hand-washing. Ultimately, this improvement should enable children to adopt good hygiene practices and participate in keeping their facilities clean and sanitary.

The Force Lift Pump is a simple device involving a handpump that, when operated, fills an overhead tank, installed at a height varying from 11 to 15

feet. This system requires neither electricity nor an additional physical effort. The cost of one Force Lift Pump is around ₹12,000 to 13,000. It can lift water to a height of 8 meters or push it along a horizontal distance of between 150 and 200 meters. An agency was hired to install these pumps. The Gram Panchayat (GP) of each local was entrusted the responsibility of overseeing the installation process and making the payment from the 12th or 13th Finance Commission budgets. Based on the successful experiences of Hoshangabad district, the state government scaled-up the project to include all 50 districts in the state. As of June 30, 2012, around 10,325 Force Lift Pumps were installed in as many handpumps, covering 9,925 schools and 400 anganwadis.

Piloting

In January 2011, the district installed two Force Lift Pumps in two handpumps. These pumps were monitored for two to three months and their performance was satisfactory. Based on the

PATHWAY TO SUCCESS

experiences of this pilot, the district planned to scale-up the initiative in the entire district.

Rapid Assessment

Prior to scaling-up, the district undertook a rapid assessment to gauge how well handpumps were functioning and determine the availability of groundwater year-round in all of the district's schools and anganwadis. A further study evaluated the safety of handpumps in schools and anganwadis, additionally gauging the interest of teachers and communities in managing Force Lift Pumps. Based on this data, the district decided to install approximately 1,100 Force Lift Pumps in as many handpumps during the project's first phase, covering a total of 850 schools and 250 anganwadis.

Orientation or Awareness-raising Events

The district organized various orientation events and functions to present information on the operation and maintenance of Force Lift Pumps to various field functionaries from the education department, Public Health Engineering Department, anganwadi centers, and associated Gram Panchayats.

Commissioning Force Lift Pumps on a Large Scale

Based on the findings of the rapid assessment, the willing cooperation of schools and anganwadi staff, as well as the availability of GP funds, 543 Force Lift Pumps were installed in as many handpumps through a hired agency, covering a total of 470 schools and 73 anganwadis. Responsibility for the regular maintenance and management of these

units was subsequently handed over to the respective schools and anganwadis.



Key Factors Contributing to the Successful Functioning of Force Lift Pumps

- Simple, user-friendly, and cost-effective technology.
- Availability of groundwater throughout the year in most parts of the district.
- Proactive support of senior district officials.
- Cooperation of teachers and students.
- Commitment of GPs to make timely payments and ensure regular follow-up on the installation and functioning of Force Lift Pumps.

Key Achievements and Impact

- The use and maintenance of toilets has improved considerably in all schools.
- Personal hygiene practices (hand-washing at critical times) of school children improved.
- Children are now spared the drudgery of carrying water from handpumps to toilets in the schools.
- More than 28 percent of schools in Hoshangabad have been covered under the Force Lift Pump program. There are further plans to cover all feasible sites over the coming year.
- In many schools, the frequency of hiring paid labor to clean the washrooms has been drastically reduced. Prior to installing Force Lift Pumps, schools had to hire cleaners at least once a month; now they only need to call on such services every five to six months, saving schools between ₹450 and ₹600 per month.
- Water waste is minimized.
- Point drainage at handpumps has improved considerably.

More than 28 percent of schools in Hoshangabad have been covered under the Force Lift Pump program. There are plans to cover all feasible sites over the coming year





Key Learning

- Force Lift Pumps installed on the handpumps of schools and anganwadis that are protected (thanks to boundary walls) were found to be functioning well, as there are fewer chances for miscreants to steal or damage these pumps.
- Force Lift Pumps installed on handpumps upon which the community does not depend for drinking water were found to be working well. In other cases, Force Lift Pumps were removed or damaged, presumably due to concerns over water flow volume (especially during lean times) in many locations.
- Handpump mechanics ill informed about the functions of Force Lift Pumps had deliberately removed many of these, fearing that they would damage the handpumps.
- Force Lift Pumps are working well wherever groundwater is available year-round.
- Though Force Lift Pump technology is simple and easy to operate, spare parts are not readily available in the market. In some areas, Force Lift Pumps are not operational due entirely to this lack. Hence there is a need to mobilize the private market to sell these parts.

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