13 Sustainable Community Owned Total Sanitation

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Abstract

Low sanitation coverage in India means that increasing energy must be applied to the issue to accelerate coverage. There are problems associated with previous and current approaches, especially in generating sustainability. Accepting that community ownership is vital, and that achieving open defecation free areas is the aim, the issue of subsidy, especially to the ultra poor, remains an open question. Sustainable Community Owned Total Sanitation (SCOTS) is an approach built on an analysis of the strengths and weaknesses of Community Led Total Sanitation and other approaches.

Background

Even in 2006, after 60 years of independence, sanitation coverage in India appears to be low at 33% (UNDP, 2006). The achievements in the sector are, however, significant given that coverage was just 1% in 1981.

A number of initiatives have contributed to this, particularly the Government of India's policies and programmes, such as the "Total Sanitation Campaign (TSC)", and the efforts of NGOs and INGOs. A constant increase in the number of Gram Panchayats being awarded the "Nimal Gram Puraskar" every year is a good indication of the increasing momentum of sanitation in the country. International organisations such as Plan India. UNICEF, WaterAid and Water and Sanitation Program (WSP) are known for setting new trends on the ground by piloting innovative and cost effective sanitation approaches for wider replication. In early 2005, Plan India developed one such innovative approach called "Sustainable Community Owned Total Sanitation (SCOTS)". This paper is concerned with the reasons for developing the SCOTS approach, the methods by which it is

¹ An award from government for achievement of open defecation free status

carried out, the impacts that pilot schemes have had, and lessons that can be drawn.

Plan India developed SCOTS to confront the well documented lack of sustainability in sanitation provision. Before going into detail about SCOTS, it is worth looking at the main determinants of sustainability, particularly increased emphasis on "software", and how to resolve conflicting positions relating to hardware subsidy.

Key Issues in Sustainability

Software

Previous attempts to increase sanitation coverage have focused on constructing as many sanitation facilities as possible - a "supply driven" approach, sometimes referred to as "latrinisation". It is now widely recognised that more emphasis is required upon "software" issues, such as increasing demand for latrines and fostering hygiene behaviour change — "every latrine should be a wanted latrine".

The lack of importance given to software activities is widely held to be the critical factor in poor sanitation coverage and use of constructed toilets in rural areas. Sanitation approaches must aim to create awareness among the communities of the ill effects of open defecation. The community should understand that open defecation is the root cause of faecal-oral transmission and associated diseases. As well as making the community understand the health and other benefits of good sanitation practices, the process needs to demystify technical aspects of sanitation.

There are proven examples across the country (and in other countries) which highlight the need to create intensive demand, which leads to faster

coverage and better use of sanitation facilities. But it is also true that these successful sanitation experiences are restricted to small pockets across the country. Lessons learned need to be scaled-up with appropriate capacity building measures, including appropriate Information, Education and Communication (IEC) strategies. Software activities should be a higher priority than hardware.

Plan India undertook a review of its activities and those of other programmes, asking:

- are existing software interventions sufficient to create lasting demand for sanitation?
- has the programme adopted appropriate methods and approaches for changing attitudes and behaviour?
- do these interventions bring a shift away from open defecation? Is this aim their primary focus?
- are the IEC materials which are widely used appropriate for local sanitation issues?
- do software interventions provide enough focus on the follow-up activities such as monitoring sanitation usage, maintenance of latrines/toilets etc.?
- does the programme undertake periodical reviews to update the materials and methodologies?

We concluded that any framework must address the social, technical and economical aspects of sanitation solutions. The framework should also be flexible enough to vary the messages according to local conditions and demand.

Subsidy

There is a growing debate within the sector about whether to subsidise hardware elements of

sanitation programmes. Currently, sector players across the country follow various approaches. These include:

- Varying subsidy scheme (e.g. the Total Sanitation Campaign (TSC)/international non governmental organisations)
- No hardware subsidy (e.g. Community Led Total Sanitation (CLTS))
- No subsidy and reward (Sant Baba Gadge Government of Maharastra)
- Subsidy and reward (TSC and Nimal Gram Puraskar).

Inconsistency is problematic for a number of reasons, including:

- The most effective method should be adopted in all circumstances, where possible
- Neighbouring communities will be confused by different methods being employed – especially if subsidy is available in one place but not the next.

When Plan India conducted its review, it asked some fundamental questions about the subsidy issue; essentially, **Should subsidy be part of the sanitation package?**

Broadly, two types of argument exist:

 Intensive software intervention is enough and there is no necessity to consider hardware subsidy as part of sanitation package (for households). Indeed, the need for hardware subsidy indicates that the software elements of the intervention have not been carried out properly. Various studies reveal that the community spends a considerable amount on treating illnesses arising from unsafe water and sanitation. They also lose their daily income due to sickness. Convincing the community that it makes sense to invest in sanitation services for better health would appear be a good approach. The proponents of the Community Led Total Sanitation (CLTS) approach stress its subsidy-free nature. It is widely held to be successful in Bangladesh and some successes are also reported in India and elsewhere. Should not Plan India pursue a similar strategy in India?

- 2) The ultra poor require some subsidy to purchase the necessary materials and/or labour to construct their facilities, however knowledgeable and motivated they are. There are two separate issues here:
- a) If the zero subsidy argument holds water then the experience in Bangladesh should reveal that the low-cost, simple, shallow pit latrines introduced at the beginning should have been improved (or at least refurbished) since. So what is the present status of the villages that were declared as fully sanitised at the initial

BOX 1 VERCs CLTS approach in Bangladesh

VERC, a non-governmental organisation (NGO) in Bangladesh, could achieve 100% sanitation in 90 communities within a short span. The beauty of the project was that there was no subsidy involved. Making the community aware of the ill effect of open defecation through participatory exercises such as transect walks, social mapping, defecation map and encouraging the community to find locally available low-cost options for the toilet construction. The cost of the toilet models adopted by VERC target community varies from \$ 2.36 to \$15.14 (Rs.125 to Rs.750)".

(Based on Kar, 2003)

stages of CLTS at Bangladesh? There are indications that subsidy is being provided to CLTS communities to upgrade. If the position has been reached where subsidy is needed, why shouldn't it be included at the start?

b) In any event, zero subsidy often results in poor families going into debt. This itself is inequitable and unfair. When so much money is being spent on campaigning, meetings, conferences and consultancies, why not divert some funds to hardware components? Surely this is a better way of supporting the poor community than being dogmatic about the subsidy issue when its benefits are unclear and contested?

Plan India concluded that on the above basis household hardware subsidy should be considered, so long as the well-known drawbacks could be confronted. These include:

- Varying subsidy: Sector players, including the government, have no uniform subsidy policy. Subsidy fixed by the government of India for the Total Sanitation Campaign (TSC) is Rs.1,200². However there are states which provide subsidy as high as Rs.2750/-³. Analysis of the programmes of international non governmental organisations (INGOs) reveals that every agency has its own norm for subsidy⁴. So do we have to fix a clear framework for the subsidy component (see comments above regarding inconsistencies)? Is it worth setting a minimum and maximum ceiling for subsidy?
- Misuse of subsidy: Reviews of poor usage of constructed toilets under different schemes reveal that, in a few cases, families constructed the units just to use the high subsidy

BOX 2 Experiences from Plan International (India) Sanitation Review

The sanitation review, across India Programme Units (PUs) in ten states, reveals that in general the community prefers to construct a pour flush leach pit toilet than the temporary direct pit with squatting slab. Intensive hygiene promotion helps to convince the middle and upper middle class families, and to some extent motivate them to invest in toilet construction, but the same is not feasible for the poor and marginal families.

Most poor families are willing to provide free labour for the construction. But these families desperately need some minimum support to buy basic materials such as pan, p-trap and cement, and to meet the cost of skilled labour. Minimum support for poor families needs to be considered as part of the sanitation package. People who participated in the study made a clear statement that convincing rural communities to construct and use toilets is a very difficult task; after all the hardships, providing a substandard design (which would only last for a short span of two to six months) would demoralise the community. If a unit fails or collapses at an early stage, the chance of bringing sanitation coverage to these families in rural India is lost.

- available from the scheme, without a true understanding of the importance of sanitation. Hence software elements of programmes receive the proper attention and resources.
- Capture of subsidy: The review exercise reveals that in the majority of cases influential and/or relatively wealthy families were first to use the subsidy component because of their connections with subsidy providers/politicians. In most cases, the poor and vulnerable benefited the least. The need here is to ensure that this subsidy "capture" is resisted through proper targeting. Many now believe that the only way to ensure fair targeting is

² Subsidy amount recently revised from Rs.500 to Rs.1,200 for Below Poverty Line (BPL) family.

³ The support to family for toilet construction in Andhra Pradesh

⁴ Rs.650 per unit is the subsidy fixed by WaterAid, whereas in Plan Programme units, subsidy amount varies from Rs.1,000/- to Rs.2,750/-

for the community to make the decisions on this issue, instead of using externally imposed mechanisms.

- In addition, lack of sufficient space to construct toilets and the lack of money to supplement and complete the prescribed design excludes poor families from subsidy schemes. If the poor are to access subsidies, it is important to demonstrate various low-cost designs and give families a free hand in choosing an appropriate model. The systems and procedures for accessing subsidies must also be simplified to allow less literate people to benefit.
- The long wait for subsidy: In a few cases, though the community wants to construct and use toilets, the time taken for some schemes/ support from the government or from other sources can be extremely long. Waiting without having any clue whether the required subsidy will be forthcoming is a dangerous scenario. It also hinders the acceleration in coverage needed in the limited time span of the sanitation MDG.

Considering the prevailing poverty rate in rural India, Plan India takes the view that poor and marginalised families should be considered for minimum support to meet the basic cost of materials such as pan, P-trap, soil pipe and cement, and for meeting the wages of skilled labour. This support would help to construct toilets with minimum standards, which would last for five to ten years. A lack of support could encourage the poor to build low-cost structures which do not last, and run the risk of their sanitation practices not being sustainable in the longer term.

As well as this, participatory exercises such as wellbeing/wealth ranking to identify the poor families will help with targeting subsidy. Encouraging the community to use locally available materials, such as boulder with mud mortar for basement construction and thatches for superstructure, would bring down the construction cost.

The resource gaps

Compared to other sectors, a limited number of organisations is involved in sanitation services in India, whereas the real demand in the country is enormous. Around 50% of a population of 1.2 billion, in the rural villages and urban slums, need sanitation services by 2015. One can easily visualise the Herculean task ahead in the sanitation sector in India. Even with a minimum subsidy amount of Rs.1,200 per family⁵, the resources needed to bring full coverage are huge. The government and other sector players have to find a sanitation strategy to address the enormous demand.

In this context the role of NGOs/INGOs is to demonstrate innovative, cost effective and sustainable approaches for others to replicate (the time span for these kinds of experiments should be shorter and quicker). Plan International (India) is attempting/promoting one such approach — Sustainable Community Owned Total Sanitation (SCOTS). Its main features are shaped by the factors mentioned so far in this paper.

What is SCOTS?

The basic principles of SCOTS are:

 Making the community realise the importance of maintaining sanitary conditions in and around the village

⁵ Subsidy available under TSC scheme

- Facilitating them to arrive at a localised solution that addresses their issues
- Enabling them to meet their present and future needs through an appropriate institutional arrangement at village level
- Motivating the community to completely avoid open defecation by taking immediate action and transforming this immediate action into a longer-term solution is a special part of this approach.

SCOTS aims to achieve total sanitised communities by adopting low-cost sustainable solutions while discouraging promotion of high cost design and inputs. Subsidy for Below Poverty Line (BPL) families to procure essential materials, credit for medium-income groups and teaching technical know-how to elite groups are also main elements of the approach.

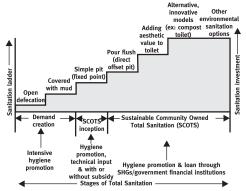
The stages of SCOTS

The chart below shows SCOTS' sequential approach, from creating demand for improved sanitation to addressing other environmental issues in the village.

However, bringing out the shift from open defecation to fixed-point defecation is a challenging task. SCOTS approaches this major shift through participatory processes, with institutional and economic support. The SCOTS approach facilitates the following steps:

History line: The community analyses the water and sanitation facilities and associated problems at various stages of the development of the village. This exercise enables the communities to visualise the changing water and sanitation situation in their own villages.

Sequential steps of Plan International (India) Total Sanitation Approach



- Transect walk: Motivate the entire village community including children and women to join in the transect walk. This involves visiting the houses with or without sanitation facilities, defecation areas around the village used by different groups of people, water facilities, garbage dumping areas, water stagnation spots etc.
- Village mapping: Following the transect walk, the community is involved in drawing their own village map incorporating the observations. The exercise would end with discussion of various problem identified.
- Input and output calculation: The community analyses their daily food intake and generated waste (excreta). Encourage the people to work out excreta generated per person per day, per family and for the entire village. Project this calculation for a week, month and year. Make them to realise what is happening to the huge waste generated.
- Linkage diagram: The community identifies the faecal-oral transmission route – for example, how the faecal mater is transported from the open defecation site to a new host

through water, pet animals, flies, fruits, vegetables etc. – and list associated effects. Ask the community to identify the ways and means to break the faecal-oral transmission route.

- Health and non-health benefits: The community works out health and other benefits of safe disposal of excreta. This helps them realise the money spent on treating diseases like diarrhoea and the wages they lose due to sickness. Involve Auxiliary Nurse Midwife (ANM)/ Primary Health Centres (PHC) staff in the exercise and ask them to share statistics on the number of times the village community has approached them for treatment of water and sanitation-related diseases.
- Technological options: The community analyses the various ways and means of tackling the prevailing sanitation issues within essential parameters – availability of materials, costs involved, skills available within the community. They work out an appropriate action plan. Demonstrate various low-cost options so they can choose the right design for their economic status.
- Skills and capacity building: Following an inventory of materials and skilled labour available, consider appropriate exercises for developing capability. Young people and traditional masons in the village can be trained in constructing low-cost toilets and producing low-cost materials such as hollow block, mud block and cement rings. Encourage Self Help Groups (SHGs) and Community Based Organisations (CBOs) to provide credit facilities, along with marketing sanitary materials such as pan, P-Trap etc.
- Subsidy for BPL families: If there is no government subsidy available for poor

- families, consider providing minimum assistance for poor families to meet construction costs up to basement level. Wealth ranking or well-being ranking exercises can be organised to identify the poor, medium and elite group in the village.
- Credit facilities: Encourage the community to take loans from their self help groups or from government financial institutions for toilet construction. Wherever possible, promote appropriate revolving funds for the SHGs.
- Monitoring: Experience shows that children are powerful campaigners. They are capable of influencing their parents and other community members to adopt good hygiene behaviour, including toilet usage. Making school children understand the importance of good hygiene practices is vital for the sanitation campaign. Children's clubs, SHGs, youth and adolescent girl committees in the village can be actively involved in sanitation promotion and checking open defecation in the village.
- Links to reward schemes: The reward schemes promoted by state and central government can motivate communities to achieve clean villages. Traditional leaders, youth/adolescents, SHGs, Panchayats, school committees etc. should have a role in achieving clean villages.
- **Follow-up:** This is a very important step in the SCOTS approach. These initiatives do not stop once the community has shifted from open to fixed point defecation, but goes further to achieve sustainable results in the longer term. Follow-up activity facilitates the following aspects:
- Continued hygiene promotion to encourage better use and maintenance of sanitation

- facilities, and proper hand washing at critical occasions.
- 2. Converting temporary/semi-permanent structures into permanent ones.
- Analysing water availability based on the requirements and taking steps to address these through community initiatives or government and other schemes.
- Ensuring the community keeps continuous watch on the proper disposal of solid and liquid waste.
- Facilitating the community to address water and sanitation needs at schools and anganwadis.
- Encouraging the community to take up innovative methods such as ecosan, vermi composting, biogas etc.
- 7. Establishing an institutional set-up to meet the day to day needs and future sanitation demands of the village community. This institution can also take up the operation and maintenance of water source and water quality monitoring and surveillance.

Lessons

Subsidy

Whether to subsidise toilet construction is a major debate among the sector players. SCOTS experience suggests providing targeted subsidy to families below the poverty line is appropriate. About 37% of the community live on less than \$1 a day in India, and 80% live on less than \$2. For these low-income communities, meeting their primary needs such as food and clothing takes priority over sanitation services.

As a result, the SCOTS approach involves conducting a participatory "wealth ranking or

family economy analysis" for providing subsidy. The subsidy would cover the cost of materials and skilled labour up to the basement level. Plan India provides a maximum subsidy of \$40 to \$55 to targeted families, taking into account the recent cost escalation of construction materials and skilled labour. The rest of the community is encouraged to invest their own money or use the credit support from the SHGs or local banks to construct toilets.

There are some difficulties in the existing BPL list (colour of ration card). To make sure the right families received subsidy, the children's group and community representatives conducted a "families economy analysis" (wealth ranking). The community themselves decided who needed to be given subsidy or a loan for toilet construction.

The design

SCOTS encourages communities to choose from a range of toilet designs according to their ability to pay. Unlike other approaches, SCOTS aims to give equal importance to the long term sustainability of the basic units along with the awareness creation and hygiene education aspects. This is very important to ensure that fixed point defecation is practised for long enough to bring about a change in mindset. Usually, it aims to promote models which can last up to six to ten years. In waterlogged areas, Ecosan toilets are given priority to avoid the contamination of ground water that occurs in the normal pour flush toilets.

Holistic approach

Apart from promoting sanitary services, SCOTS builds the community's capacity for managing and maintaining its own water sources. If existing water

BOX 3 SCOTS pilot project experience

Dubba Thanda, a small tribal hamlet of Elakaram Grama Panchayat in Suryapet mandal of Nalgonda District of Andhra Pradesh, was chosen by Arthik Samata Mandal (ASM) Plan India project to pilot the SCOTS approach. Plan India chose this hamlet, which has 40 tribal families, to understand the effectiveness of the approach in a particularly difficult region and also within a backward community.

Basic institutional arrangements introduced at the community level included forming CBOs, SHG, a children's club, youth group, school health committee and village health committees. The project also established strong links between the people's institutions and the local Gram Panchayat and government departments to strengthen the process of change.

The community led the implementation of the activities, with the assistance of ASM and the local Gram Panchayat. Participatory exercises were organised to map out the existing issues and solutions. There were also periodic discussions with the community to identify the issues and probable solutions for carrying out the work successfully. ASM facilitated the process of conducting awareness and capacity building exercises. Investment for the project is minimal – only software support and subsidy to poor families. The rest of the support came directly from Gram Panchayat to district administration due to the active lobbying and advocacy efforts of the village level committees.

Achievements

As a result of the interventions, we have witnessed improvements in the hygiene conditions and the overall quality of life among the tribal people. Now, all the 40 households have toilets in their homes and they are using them. The village is free of open defecation. The practice of safe disposal of waste water and solid waste has been addressed effectively. All the 40 families have a washing platform, soak pit, kitchen garden, and compost/garbage pits.

The government provided the village with a water supply scheme as a result of village committee's lobbying efforts. The villagers have also taken steps to operate and manage the drinking water source and monitor its quality and usage regularly. All the 40 families have an individual water supply pipe connection and contribute Rs.30/- per month towards operation and management of the system.

Children who have learnt about safe hygiene practices are especially important in making sure that their family and other community members follow these. Most households are also able to grow vegetables in the kitchen garden, raised from the waste water in their backyards.

Recently, the Gram Panchayat was awarded the "Nirmal Gram Puraskar" by the President of India for the achievement of total sanitation. The Gram Panchayat president, for the first time in her life, flew to Delhi to receive the award on behalf of the community. The village has become a model for other villages in the area, and several neighbouring communities have requested ASM and the Panchayat to start similar projects in their villages. Communities, especially children, of the Dubba Thanda are proud of the new status of the village as a result of this initiative. They take pride in their achievements while they showcase their work to others visiting the village.

Role of children

The children's club members are the real change agents in Dubba Thanda. The project used weekly meetings of the children's club effectively to explain the importance of improving hygiene practices. The school hygiene programme emphasised these messages further. The enlightened children's club members were also actively engaged in creating demand for sanitation in their respective families and in the community. They were involved in promoting better hygiene practices, monitoring water and sanitation programme implementation and toilet use, and keeping the village environment clean. The children's active involvement was a primary factor in achieving major changes in this remote and economically backward tribal village. Master Chitibabu, children's club secretary, proudly says that "the neighbouring communities who often pass through our village are amazed to see such a clean village in the locality and we are proud of this great achievement".

Impacts

We have observed the following health impacts:

- No diarrhoeal cases for the past year and a half
- Children are not affected by worm infections
- No anaemic cases among adolescent girls/women
- No reports of RTI infections
- Fewer health cases from the village

facilities are not sufficient to meet demand, the programme helps CBOs to acquire the support they need from the government or other sources. The approach also promotes soak pits or kitchen gardens for safe disposal of liquid waste and garbage/compost pits for safe disposal of solid waste. It aims to attaining sustainable sanitation services not only within the community but also in the schools or anganwadis situated in the village.

Before declaring a totally sanitised village, the SCOTS approach aims to put in place the management aspects that are critical for the success of the initiatives.

Replication

The Dubba Thanda village became an eye-opener and a live model for the neighbouring communities, other NGOs and government departments. Dubba Thanda community influenced the Ramanakundam, Kotinayak and Komatikunda communities to achieve similar results. A visit to Dubba Thanda creates confidence in the minds of the people. The thought they often express is "when an economically backward tribal village can achieve such a great transformation with limited resources and in a short time, why can't we do the same in our villages?".

The district administration has realised the importance of the active involvement of children and the community in achieving sustainable water and sanitation services, and has asked ASM to replicate the same approach in three more Panchayats.

The achievements of ASM Vijayawada Project have had an impact on their other unit in the Krishna

District of Andhara as well as other Plan India partners working in Orissa (CYSD) and Uttaranchal (SBMA). As a result, four SCOTS communities have received the "Nirmal Gram Puraskar" award from the President of India this year.

Recently, Plan India conducted a mid-term review among its programme units in ten states of India. Realising the impact of the SCOTS approach, we concluded that scaling-up SCOTS would be the only major water and environmental sanitation intervention in India. The achievements in a remote corner of Andhra Pradesh has influenced Plan India's whole country strategy, further confirming the success of the SCOTS approach.

Conclusions

- The Dubba Thanda experience shows that the SCOTS approach can be a viable option in achieving open defecation-free villages along with sustainable water, solid and liquid waste management systems.
- This experience shows that, apart from the motivation and awareness creation aspects, meeting financial needs through targeted subsidy and credit schemes can help promote change. Facilitating communities to choose various options which are locally available and cost effective can address the financial aspects to a great extent. Building a positive environment for change by supporting the poor and vulnerable families also appeared to have a very positive bearing on the rich families living in the village.
- In Dubba Thanda and in the neighbouring villages, achievements under the SCOTS approach clearly indicate that targeted subsidy for poor and vulnerable families is critical. The implementing organisation should

- not impose a huge burden on poor and vulnerable communities in the name of innovative approaches such as "zero support for hardware".
- The experiences in Dubba Thanda and in the neighbouring community send a very clear message to the implementing partners in India to look beyond the existing BPL list (colour of ration card etc.) in deciding who is eligible for subsidy. When community groups identify the needy families, the list is often entirely different from the existing BPL list.
- Involving the entire community and local institutions in the process is very important. The involvement of children in the process both at school and in taking the message to families and community is especially critical. Sharing the technical designs with the kids before implementation would help in evaluating the child friendliness of the options.
- The experience of Dubba Thanda shows that piloting the SCOTS approach in economically backward pockets of habitation can have a major impact upon the neighbouring communities and the local governments.
- Even though the implementing agencies may have only a limited mandate, the preparatory planning exercise should include all the aspects mentioned. Dubba Thanda demonstrates that promoting an integrated approach towards a holistic water and sanitation service yields greater results, although it may slightly increase the budget and time. Other programmes and community initiatives may contribute to activities outside the agency's mandate.

- Before withdrawal, agencies should ensure that communities have taken responsibility for sustaining the changes introduced. Slipback is a major concern, even in villages which have total sanitation.
- As SCOTS calls for an intensive approach that involves creating awareness and motivating communities, there is a need for trained and highly motivated village level workers. Therefore, it is important to develop the capacities of the staff members involved in the process while introducing SCOTS.
- Regular follow-up visits for reinforcing hygiene education and sanitation improvements are needed. Participatory assessment of the changes within the communities also needs to be carried out regularly to involve the communities in the whole process. Agencies need to allot the necessary manpower and time to effectively lead the communities towards change. They need to pay adequate attention to communities which have low literacy levels to transfer the skills effectively.
- Most importantly, developing strong links to involve key leaders and government officials is essential for setting sanitation as a priority even at the village level. Unlike other development issues, sanitation calls for special focus at all levels.
- The Nirmal Gram Puraskar award is also a very effective element that can be used to encourage the communities, especially the local leaders/elected Panchayat representatives, towards achieving total sanitation.

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