In India, the national goal is to provide every rural person with adequate water for drinking and cooking on a sustainable basis. Water supply for drinking and cooking should maintain sufficient quantity and quality. Access to drinking water supply alone is not enough to reduce health problems unless quality is ensured. For instance, bacteriological contamination of drinking water can cause child mortality despite ample water quantity. Reliability of drinking water quality is equally important at both the production and consumption levels. Under the national drinking water supply programme, we have developed and implemented the Community Led Action for Sanitary Surveillance (CLASS) approach to trigger remedial measures for improved access to safe drinking water. We used a World Bank funded reward scheme to motivate communities to adopt CLASS in 35 villages in Uttarakhand, India. We found motivated local self-government members effectively facilitated CLASS, so the approach has potential to become replicable.

In this paper we would like to present our field experiences utilizing a reward scheme for the implementation of the CLASS approach, an interpersonal communication tool for building awareness and triggering action for safe drinking water, in 35 Gram Panchayats of Dhari Block, Nainital District in Uttarakhand, India in 2010.

Background on the CLASS approach

Despite sufficient water supply in rural areas in India, quality of drinking water continues to be a major concern. To address the issue of water quality, we developed a new innovative tool, “Community Led Action for Sanitary Surveillance” (CLASS), not only to motivate community involvement in the programme but also to develop a participatory model for community based water quality monitoring down to the bottom Gram Panchayat (GP) village level. In the pilot programme, we implemented a reward scheme for the institutionalisation of CLASS with the support of the India Development Marketplace (IDM), which is an initiative of the World Bank to promote innovative ideas in the field of development. Following implementation of CLASS an evaluation committee including government officials, local self-government representatives and media representatives verified outcomes in qualifying GPs and rewarded top performing communities.

CLASS is founded on the idea that community analysis of all drinking water sources in the village, collective realization of risks associated with different sources and awareness of recommended water treatment, handling, usage and management practices can effectively trigger community-wide action. In order to prevent bacteriological contamination, a key trigger occurs when villagers realize they may be drinking shit-mixed water due to absence of source protection and point of use treatment and presence of open defecation and other unhygienic practices. Using such a trigger can quickly generate a remarkable sense of disgust leading to immediate collective action to adopt remedial measures, ensuring use of safe drinking water by all households in the village.
CLASS facilitation
Initially, external facilitators from governmental or non-governmental organizations guide the CLASS process and gradually facilitators from the community take over facilitation responsibilities. The local community facilitators would be the natural leaders who emerged during the process of external CLASS facilitation; natural leaders would be recognized and encouraged by the external facilitators. The community facilitators may include health workers, teachers, members from the Village Water Sanitation Committee or another self help group, or any willing villager emerging as a natural leader. Youth and women should be included in training to become local facilitators since they have the trust of the community and can become effective natural leaders in CLASS. Gram Panchayat members could also be identified and encouraged to facilitate. With proper facilitation, community members are triggered to understand reasons and methods for changing behaviour, to internalize the value of improved water quality and to initiate lasting remedial actions.

Process for CLASS with reward scheme
- Introduction and rapport building.
- Three-D mapping (Drinking water sources, Defecation areas, Diseases) and calculations. Mapping of drinking water sources, defecation areas and diseases as well as calculation of shit and medical expenditure due to diseases.
- Facilitating sanitary survey of all village water sources on a sample basis by external facilitators; assessment of risks associated with surveyed water sources and calculation of cumulative risk in the concerned cluster.
- Demonstrating water sample collection from different sources by external facilitators.
- Demonstrating water quality testing using H$_2$S vials for identifying bacteriological contamination (Thermo Tolerant Coliform, Strepto Cacci).
- Sharing results of bacteriological testing with the community.
- In case community shows interest and is willing to initiate collective action, facilitating a process of identification of natural leaders and division of responsibilities in terms of allocating water sources on which to carry out sanitary surveys. The community develops a complete action plan for water quality monitoring and surveillance. It is important to note that the exercise has to be carried out for all types of publicly and privately owned water sources in the village. External facilitators do not press the community for initiating collective action or for action planning. Initiation should come about as a well considered and willful action from the community.
- A date is fixed with the community for a facilitator follow-up visit. In the first follow-up visit the results of the H$_2$S vial test and other related findings on water quality are shared with the entire community. Follow-up visits should focus on community action planning by creating enthusiasm among the community members.
Possible remedial actions are demonstrated during follow-up visits based on the findings of water quality monitoring.

The community finalizes registration of safe and unsafe water sources in the village.

Follow-up visits also include facilitating collection of operation and maintenance funds for water quality monitoring, setting up a community water quality monitoring system and establishing a plan for sharing collected information with block and district offices.

After facilitation is complete, GPs are invited to apply for a performance-based reward. Qualifying GPs plead their case to an evaluation committee consisting of government officers, local self-government representatives and media representatives. The evaluation committee then visits and scores shortlisted GPs physically verifying and evaluating outcomes on a 100 point scale. Top scoring GPs are selected and a ceremony is held to distribute awards.

Major criteria for evaluation include community adoption of protective and remedial measures, chemical testing of water sources, safe usage and handling of water, personal hygiene and hand washing, solid waste management, elimination of open defecation, community contribution and a self-motivated committee for sustainability of all actions.

After evaluation four prizes of Rs 70,000, Rs 60,000, Rs 50,000 and Rs 20,000 (£960, £824, £686 and £275) were distributed through the World Bank India Development Marketplace project to top performing CLASS communities.

**Outcomes of CLASS with reward scheme**

The following are the key results achieved in the pilot project:

- Communities in 32 of 35 GPs in Dhari block assessed the risks associated with the drinking water sources by carrying out a sanitary survey of all 341 water sources used for drinking and cooking.
- Communities H₂S tested all 341 water sources in 32 GPs to check bacteriological contamination.
- In 14 of 32 GPs, communities repeated H₂S tests of water sources during monsoon (i.e. July to August). 7 GPs undertook water testing a third time as well.
- A total of 10 GPs (Sunder Khal, Dhanachulli, Devnagar, Kokilbana, Buranshi, Managher, Sasbani, Gajjar, Parvada and Chaukhuta) declared open defecation free status without external assistance. Some of these ODF communities started with simple low cost toilet options and gradually moved to more durable pucca (permanent) structures. Also, some communities fined defaulters in order to stop open defecation in villages and in schools. In communities facing water scarcity, children began bringing water from home to use in the school toilet.
- Communities in 32 GPs undertook one or more protective and remedial measures based on the results of sanitary survey and H₂S water quality testing. Actions taken following CLASS facilitation included repairing broken hand pump platforms, covering water pots, treating water by boiling or chlorine tablets at the household level, chlorinating at the community level by putting bleaching powder in the naulla (traditional water source) and clear water reservoir (CWR), cleaning and protecting water sources and CWRs, contacting employees of Jal Santhan (line department for drinking water supply) to request distribution of bleaching powder and access to the CWR for cleaning purposes, changing from open defecation to toilet use, removing footwear before filling water containers in the naulla and improving household cleanliness.
- Community members started collecting contribution of Rs 10 per household per month for maintenance of water sources in two GPs; community banned washing of clothes near the naulla in one GP; community members formed vigilance committees to ensure cleanliness at water sources, to eliminate open defecation and to encourage construction of temporary toilets in two GPs; community members installed signboards to stop open defecation and punishment of Rs 50 for violators in 2 GPs; 300 children rallied and shouted slogans about water quality in one GP.
- A number of natural leaders emerged during the process who not only led actions in their villages but also helped people to conduct water quality monitoring and surveillance in other villages.

**Highlights of the CLASS project**

- Communities are able to conduct sanitary survey and bacteriological testing of water sources (using the H₂S vials), if facilitated properly.
- Launch of a reward scheme creates a spirit of competition among members of local self-government to institutionalize water quality surveillance in villages.
CLASS methodology is an empowering process that helps communities tackle issues of poor water quality and open defecation.

- Villagers’ awareness level increases on water borne diseases and water source protection.
- In CLASS villages, all financial issues become secondary and health and dignity become primary once communities realize linkages between defecation, water quality and disease.
- Natural leaders emerge during the CLASS process. These leaders undertake responsibility first in their village and later in the neighboring hamlets and Gram Panchayats. Women and young female students are active and effective in mobilizing communities.
- Those opposing a community’s CLASS initiative later join the movement once peer pressure mounts during work done by the larger community, natural leaders and local self-government.
- After CLASS the sense of solidarity increases in villages, which is otherwise largely absent.
- The facilitating role and commitment of the implementing agency at the block/district level is critical in spreading CLASS across various GPs.
- Follow-ups (in consultation with and demand of the natural leaders and Gram Panchayats) are critical in facilitating institutional mechanisms, motivating preventative and remedial measures at the village level and ensuring achievement of sustainable outcomes.
- Self-motivated GP members were effective in facilitating CLASS exercises.
- The results of the CLASS approach with reward scheme at the community level are encouraging and can be replicated in other locations. Because CLASS is a community-led initiative, the communities are cleaning water sources and paying for water quality tests and bleaching powder to prevent bacteriological contamination. Presently all Gram Panchayats have formed committees and every family in 32 GPs is contributing Rs 5 per month for operation and maintenance. Therefore, communities are ensuring sustainability independent of external support.

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References

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