

Work Completion Report

Sustainable systems to provide safe drinking water and adequate sanitation facilities for girl child around Chennai

Foundation for Ecological Research, Advocacy & Learning

4/22/2013



Introduction

Under the project *“Sustainable systems to provide safe drinking water and adequate sanitation facilities for girl child around Chennai”* which took off in June 2012, FERAL engaged in the Water, Sanitation & Hygiene (WASH) component of the project. Based on a need assessment survey, conducted in June 2012, activities were planned according to the needs of the schools which were identified by FORD. During the project period FERAL completed a number of implementation activities (14 toilets) and awareness training programmes related to WASH. This work completion report will feature all WASH activities undertaken by FERAL during the entire project period.

1. Need Assessment Survey for construction of toilets

The need assessment survey was carried out to determine the needs of primary and secondary school within the project area. Objectives of the baseline survey were to (a) collect information on the need for sanitation facilities in schools and also to gauge current engagement levels/ interest of schools in taking up this initiative (b) collect information about existing sanitation facilities available in schools, its condition, technology / method used for disposal of waste, etc. (c) prepare an appropriate plan of action based on the baseline information to improve the sanitary and health/ hygiene practices in schools.

Outcomes of the survey on school sanitation pointed out that in most of the schools there was more need for repairing defunct toilets rather than for constructing new sanitation. In many schools there were sufficient toilets but due to a higher number of students some schools expressed the need for more toilets. In all of the schools maintenance and cleanliness was found to be a major issue. In most of the toilets water was not available; students had to carry buckets of water to the toilets and most preferred using open defecation rather than using the dirty toilets.

Alongside the need assessment survey FERAL looked at the extent in which each of the schools had existing and operating Eco Committees but none of the schools had such committees. Yet almost all the schools raised the issue of maintaining and safeguarding the infrastructure to be provided. FERAL was informed that students as well as people from outside the schools recklessly break the school property and apart from providing awareness programmes there was a need for locking and fencing sanitation facilities on the school compound. As for the maintenance of school sanitation many schools including primary schools made the students clean the toilets since no maintenance staff if available for this task.

2. Awareness Training Programmes conducted by FERAL

At the beginning and towards the end of the project period a number of awareness training programmes on WASH were conducted in each of the schools. The first awareness programme took place in September 2012, during the Global Week of Caring in which TARA organised a number of activities that were organised at CSI Melrosapuram and Peramanur High School in order to sensitize school children about the importance of clean water and proper sanitation. FERAL was involved in the following programme activities:

- **Session on Need for hygiene and sanitation**

This session, consisting of a power point presentation, was the first programme of the day and was attended by a group of 30 selected students. FERAL made this an interactive session in which students were being asked to bring forward their opinions and knowledge on hygiene and sanitation related issues.

- **Session on Need for Safe drinking water**

The group of 30 selected students were split up into two groups; one group was to attend a presentation on Need of safe drinking water and the other group could take part in the drawing competition on Water and Sanitation (conducted by TARA).

- **Short film on Water and Sanitation**

FERAL showed a 20-minute film about a young man who returns from the US to visit his parents in rural India. When he notices that all the people in the village are still defecating in nearby fields, he recruits his friends to raise awareness among the village, including the panchayat and his own parents. The film, despite conveying a serious and important message to the students, has a light and humorous approach which proves to be popular with a young audience.

- **Group Discussion on Water and Sanitation**

The 14 students who attended this session were split into two groups. FERAL handed out a number of sheets with questions about sanitation and hygiene (see annex I for the English version of these sheets) which each group had to discuss among themselves. After filling out the sheets, one representative of each group came forward to share the answers with the other group. It appears that the students were quite aware of issues regarding water and sanitation and the presentations prior to these discussions may have helped the students a bit further.

- **Snakes & Ladders Game**

This programme was carried out in Peramanur High School (afternoon programme) and CSI Melrosapuram (following morning) and was attended by 30 students in each of these two schools. This semi-interactive game, tailored to WASH-related issues is a popular activity with the students.

- **Drinking Water Quality testing**

On day 1 (afternoon programme) FERAL assisted TARA in conducting water quality testing that was done with the group of 14 girl students. Easy parameters such as pH, temperature and TDS were carried out with help of the students. Overall, the students were very eager to take part in this activity.

The second round of WASH awareness training programmes took place in December 2012. In each of the schools an introduction speech on the importance of WASH was carried out. At one point during that speech students were asked to close their eyes and raise their hands if they had toilets at home. The results of this informal survey ranged from 4% to 50%. This highlights the real need to keep working in Kancheepuram district, maybe more at the community level.

- **Snakes & Ladders**

FERAL engaged students from primary schools in a Snakes & Ladders game which has been adapted to WASH. Students were divided into teams and played against each other. The goal of this game is to differentiate good behaviour from bad behaviour by rewarding students to move

forward when they 'land' on a square which represents good WASH behaviour while they had to move backwards when they land on a square which represents bad WASH behaviour. The students much enjoyed this game.

- **Matching diaries**

The goal of this activity is for students to think about and identify good and bad behaviour regarding water use, waste disposal and hygiene. Each group of around 8 students (boys and girls mixed) are given a diary with bad behaviour example on one side and cards with the respective good behaviour. They have to match the good behaviour in the diary with the associated bad behaviour. When all groups have finished, the group that finished first a fully correct diary explains the behaviours to the rest of the class, with the help and comments of FERAL and TARA's facilitators.

- **Window game**

This activity consists in showing a board of pictures depicting WASH behaviours to the children, then asking one of them to pick one picture. The student is then asked to identify the picture he chose on a set of boards with windows. At the end, by superposing the boards where the student said his picture was, only the picture he chose appears. This activity is very entertaining for the children as it looks like magic and allows introducing a small discussion on a WASH behaviour.

- **Group discussions**

For this activity students are divided into groups of 10 to 15 students each. By using a sheet with questions related to WASH, students were able to learn more about the whereabouts of the water they use at home and in their community.

- **Water Quality Testing**

As a classroom activity in high schools and with the involvement of students, FERAL is using the water quality testing kit provided by TARA to measure a few simple but very important parameters such as turbidity, pH, temperature and coliform. This activity also proves to be very popular with the students.

- **Opportunities/Obstacles game (Family Game)**

The purpose of this game is to assess the students' behaviour towards WASH and promoting good and safe behaviour in a very interactive manner. 2 teams of 4 students are selected (2 girls and 2 boys in each team) and represent 2 families. The 'families' are then asked questions relating to WASH in everyday life (e.g. when do you wash your hands, where do you dispose of the baby's faeces?) They go up the scale on the game board (see picture below) if their answer is correct and down the scale if not. The team which is the higher on the scale is judged the healthiest and wins the game.

The final batch of awareness training programmes, involving toilet maintenance and the formation of eco-committees took place in March 2013. These training programmes specifically addressed the sustainability of sanitation; a point which is often neglected in WASH awareness programmes.

Workshops on Toilet Maintenance

These workshops were carried out in Peramanur PUPS, Karuneelam PUPS, CSI Melrosapuram HS and Peramanur HS on March 19-20. During these workshops FERAL tested students' knowledge about sanitation and hygiene and showed how sanitation facilities were to be maintained.

Depending on the group of students and time that was available presentations on Maintenance of School Sanitation' were carried out. Eco-Committee guidelines in booklet form (English) along with Tamil translation were handed out to the relevant teachers. In some of the schools games were carried out to test students' memories on the presentations that had been shown to them earlier.

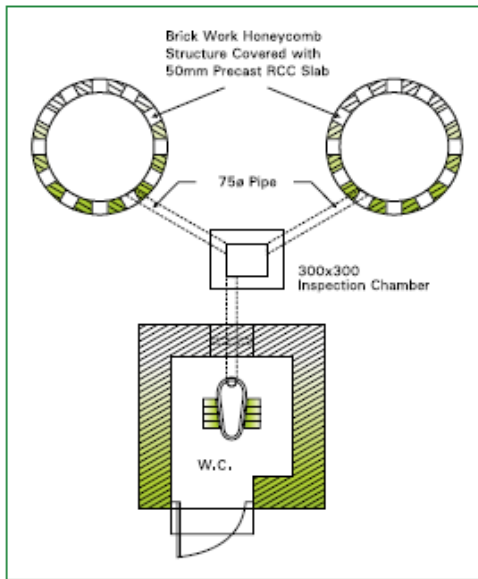
Forming Eco Committees

The same schools were visited again in the same week to form eco committees in all of the nine schools under this project. The main objective of forming such committees is to offer students the opportunity to raise their awareness and develop their skills regarding WASH. The second objective is to support students in changing the present condition of sanitation in their schools as well as in becoming agents of change on WASH in their families and communities. Roles and responsibilities of Eco Committees in maintaining toilets and urinals are to ensure the toilet seats are clean and not smelly, check for any leakage in the water pipes and missing/broken taps, make sure there are no blockages in the urinals and to report to the appointed manager (teachers) if somebody is found guilty of misusing the toilets. Eco committee members are expected to hold a meeting once every month and update each other and discuss problems and solutions regarding water and sanitation in their schools. They are also encouraged to conduct quizzes, games, debates and exhibitions on water and sanitation so as to create awareness among the rest of the students.

At the end of each session FERAL clearly emphasized that that the water and sanitation infrastructure that has been created in the school is for the students and that they are the ones to take responsibilities in maintaining the infrastructure because they are the ones going to benefit from of it.

3. Construction and Refurbishment of School Sanitation

By September 2012 FERAL had constructed two 3-seater toilets in CSI Melrosapuram and Peramanur High School. Both 3-seater toilets have been designed according to the illustration below.



Box 4

The functions of different components of two-pit pour flush toilet

- W.C. Pan: To direct excreta into water seal trap.
- Water seal trap: To prevent emission of foul smell (gases) from the leach pit and entry of flies and other insects into leach pit.
- Junction chamber: To restrict flow of excreta to one leach pit at a time and facilitate removal of accidental blockage in the connecting pipes.
- Drain pipes: To carry excreta from Junction chamber to leach pits.
- Leach pits: To facilitate leaching of liquid from excreta into surrounding soil and dispersion/absorption of obnoxious gases into surrounding soil and decomposition of excreta.

Illustration 1: Design for two-pit pour flush toilet (Source: Technological option for latrines, Total Sanitation Campaign)

The approach adopted through this project was to (a) demonstrate good sanitation practices, (b) provide sanitation facilities to students; particularly girls (c) build capacity of teachers and students on the need for good sanitation.

a. Demonstrating good sanitation practices

In high water table areas or areas prone to natural disasters (e.g. floods, cyclones) such as Kanchipuram District, normal pit latrines are not appropriate because (a) they get filled during rains and floods making them inaccessible and (b) they contaminate the ground water (sub-surface), which is the main source of fresh water. Raised twin-pit latrines prove to be the best option for this location; they will reduce contamination of freshwater sources by having a raised compost/disposal pits. The design has been adapted to young students (e.g. the size of the toilet pan) and will provide safe access even during floods or cyclones. The possibility of Eco-San toilets has been considered as well but the use of such toilets requires a whole different approach and change of mindset; there has to be willingness from the future users or else the Eco-San toilets will not serve its purpose. This type of toilet is best implemented in individual households instead of public (community) or semi-public (schools) areas.

b. Providing sanitation facilities to school children especially girls

The super structure, interior and exterior (access) of the 3-seater toilets have been designed to suit school children and has been tailored to the actual need of students by providing soap trays for hand wash and water provision for the toilet with standing tap and series of towel hooks, all within reach of small children. Inside the toilets, child friendly drawings have been painted, each of them carrying a message on personal hygiene so as to encourage children to properly use toilet facilities.

c. Building capacity of the teachers and school children on the need for good sanitation

Awareness training programmes on proper sanitation were considered an important contribution to this project. A total of three awareness training programmes were carried out (including the Global Week of Caring) as have been described in the previous section.

In the month of January and February 2013, FERAL completed refurbishment activities in two of the selected schools; Karuneelam high school and Peramanur primary school. With this FERAL has covered the number of toilets (14) that was targeted for construction/refurbishment within this project.

Karuneelam High School

- 3 urinal blocks
- 2-seater toilet
- Individual toilet

Peramanur Primary School

- 2 urinal blocks
- 1-seater toilet
- 3-seater toilet

• **Karuneelam High School**

Prior to starting the activities both schools required major clean up of urinals and toilets as all of them were defunct due to blockage, waste disposal and bad maintenance. This prevented students and teachers from using the urinals and toilets. In all of the existing urinals and toilets broken and missing tiles were replaced with new ones so as to give them a proper look and to make them easier to clean and maintain. Along with replacing tiles with new ones, water pipes were provided along the walls of the urinals to enable flushing with water after usage. In the toilets water was provided through taps. In Karuneelam High Schools doors were repaired of each urinal block so as to provide more privacy to students and teachers while using the urinals. As for the 2-seater toilet and the individual toilet, two doors had to be replaced while one door could be repaired. In each of the toilets pans were broken and had to be replaced by new ones ('Parryware') with a proper 40 degree slope. Finally, each of the urinal and toilet blocks were finished off with double waterproof painting (yellow and orange) on the outside walls to make them look more attractive to the students.

• **Peramanur Primary School**

Similar as in Karuneelam High School, urinals and toilets required a thorough clean-up before any refurbishment works could be done. This was followed by replacing broken and missing tiles and replacing the cement floor in the urinals. In addition to the water provision along the walls, a small cement water storage tank was provided in each of the urinals so that the students can wash their hands after toilet use. In each of the urinals the doors were replaced so as to give more privacy to students and teachers while using the urinals. For the toilets in Peramanur Primary School (one 1-seater and one 3-seater) tiles were provided up to two feet of the walls (there were no tiles prior to intervention) and the flooring was redone because the existing one was too damaged. Toilet pans were replaced with new ones (40 degree slope) and doors were replaced (for the 1-seater toilet) or repaired (for the 3-seater toilet). A water connection was provided in all the toilets and the septic tank of the 1-seater toilet which had been used to dump waste was cleaned and covered with a cement slab. For the 3-seater toilet the existing cement roof was repaired to protect the students better against sun and rain. Lastly, both urinals and toilets were painted with double-coloured paint on the outside of the walls to make them look more attractive to the students.