

Rain COMMUNITY

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Publisher's Note

The month of September was filled with trainings and festivities. The first two weeks of September was fully dedicated in conducting training sessions at Viswa Niketan Secondary School. Thus, the 3rd edition of this e-bulletin presents you the reports from the training sessions. We observed the biggest festival of Nepal, Dashain, in the second half of September.

The issues of water and sanitation condition at Jana Prabhat School are raised as an agenda in this issue. The month of September also celebrated installation of RWH system at the Ward no. 15 office, which has been featured here. The major activities mentioned in this issue are the plantation at VNSS and analysis of pre-test and post-test. The voices of students from VNSS have been incorporated in the testimonials.

Young Minds in Water Management



“I learned many things about rainwater harvesting, menstruation, sanitation and disaster risk reduction. Whatever I learned today, I will certainly share with my family and friends”, shared Mukesh Patel of grade 10.

A total of 903 students from Viswa Niketan Secondary School (VNSS) studying in grade 1 to 10 were provided awareness in the month of September, 2017. Under the project Emergency Rain GUTHI and IRHA had installed rainwater harvesting system at the school a year before. This year, trainings on three topics i.e. rainwater harvesting, WASH and disaster management were delivered, thus reaching out to 2709 beneficiaries.

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The students were eager to know about the exact RWH mechanism that they had been witnessing for long. They curiously put up many interesting questions as well. “What happens if the recharge well overflows?” one curious mind had questioned, to which GUTHI explained the groundwater mechanism.

The issues of WASH, menstruation, waste management were also discussed. The students at VNSS are taught about menstruation through grade 6 to 10. But they were not open- minded about the topic. “The teacher tries to finish the discussion about menstruaton as fast as possible”, shared Bishal Basnet, a grade 10 student. Through the training, the children were also taught to take care of themselves, their mother, sisters, and friends during menstrual cramps. At the end of each session, the students were involved in quiz to revise and test their understandings. The winning teams

Young Minds in..... (contd from page 1)

were gifted with sanitary pads. Ranjit Oli, grade 7 shared, "I will give the sanitary pad to my sister."

In regard to waste management, the students were taught about the systems of waste management at Kathmandu. They were specifically taught about the ill effects of waste burning.

To prepare the students for possible disasters, they were given disaster risk reduction safety tips. As an



activity the students were made to close their eyes and visualize potential risks at their home from all kinds of disaster. For example, an ill placement of gas cylinder or flower pots on the balcony, or cupboards with heavy objects at its top, etc. This made them aware about the improvements they need to bring at their houses and the discussion they need to do with their parents. "We cook on firewood and have weak walls", shared Nabin Sunwar of grade 10, "So, now I've realised that I should advise my parents to bring improved cooking stove to prevent the risk of fire."



Two sections from grade 9 were given Pre and Post Test to analyze the level of change in understanding before and after the training session. The occurrence of correct answers increased from 65.63% in the pre-test to 78.80% in the post-test.

The students of grade 1, 2 and 3 were approached differently. To leave an impact on their little minds, interactive videos were shown to them. While all the other grades knew the steps of handwashing, grade 1 students hadn't been subjected to handwashing yet. So, they were practically taught the six steps of hand washing.

Thus, the training sessions at Viswa Niketan Secondary School were successfully conducted where the students got knowledge beyond their books. We at GUTHI believe that bringing a positive impact on the young minds through such trainings will certainly bring a better future.



Figure: Training session at Viswa Niketan School about Rainwater Harvesting, Sanitation and Disaster Risk Reduction

Water Shortage affecting Cleanliness at School

Jana Prabhat School purchases at least 2 tankers of 12,000 liters every month solely for drinking purpose. This costs them NPR. 3600.00 while for maintenance of sanitation and hygiene, they use water from well. The quality of the water from the well is of very poor quality. Satyandra Lal Karna, Principal of the school shared, "The school is facing water crisis which is also impacting the maintenance of the sanitation facilities in the first place. Similarly, as the water from the well has high iron contamination and is turbid, it is causing yellow stain on the floors and walls of sanitation facilities."

Children too are impacted by the water issue in their school. There are 7 drinking water taps available at the school through which the children receive water. But most of the time, water is not available. Many children carry their own water bottle but they share that the water they bring from home is not enough for the day. "We have a water problem in the school not only for drinking purpose but also for using it after the toilets use. The water supply from the tap is irregular and many of us remain thirsty especially during summer season when the consumption of water is very high," shared Pushpa Kafle, grade 9.

The school has altogether 4 wells through which they receive enough water during the monsoon season but once the dry season starts, they face water shortage. The wells dry up or store limited amount of water. "During the month of Chaitra, Baishakh and



Jestha, it becomes difficult for us to fulfill our water demand as the wells dry up," shared Leknath Kunwar, maintenance staff of Jana Prabhat School.

"We need to carry drinking water to the Early Childhood Development Center which is in the next block from where the drinking water is distributed on every school day. It becomes very difficult to manage water during the times when the water tanker even can not supply water," shared Shiva Hari Manandhar, Vice-Principal of Jana Prabhat School.

After assessing the water deprived condition of the school and its beneficiaries, an underground tank of 25, 000 liter capacity and a bio sand filter will be installed at the school under the Rain Community Project. We believe this project will provide the school with an access of improved and safe water.



Figure: Jana Prabhat Secondary School Students participating in cleaning their school on World Environment Day.

Kathmandu Ward Office Drives the Rainwater Promotion

✍️ Bimala Gurung, Manashree Newa

With the technical support from GUTHI and positive initiation from the chairperson of the ward, Rainwater Harvesting (RWH) System was installed at office of Ward no. 15 of Kathmandu Municipality. The system was inaugurated on 1st September, 2017

Easy access and availability of enough water has been one of the major agendas of the Local Election of Nepal, 2017. With regard to this, GUTHI had been continuously interacting with the representatives of ward no. 15 to advise them about benefits of RWH system installation. Thus, in order to promote rainwater harvesting system and encourage the public to adopt one, a RWH system of 77.649 square meter catchment area and 16,000 liter water tank was constructed at the ward office.

The total cost RWH installation was NRs. 2, 00,000. The ward office currently has 28 employees with an annual water demand of 2, 30, 600 liter. The ward office's annual expenditure on water (Jar and Tanker water supply) was NRs. 97,800. However, now, after the installation of RWH system, an annual expenditure of NRs. 2, 97,912 can be saved.

"The ward office does not need to spend money on water. Now, it will earn NRs. 9,700/- on a monthly basis from RWH system. It is not just a campaign. We are promoting water sufficient system at household levels," said Prakash Amatya, Technical Advisor at GUTHI.

The newly elected chairperson Ishwor Man Dongol, Ward No. 15 shared, "I believe harvesting rainwater is the best alternative to ensure the regular supply of water to the people. If only we can harvest rainwater and recharge the overflow rather than letting it drain away in sewerage, water issues can be managed to

large extent. So we want to encourage and aware people about rainwater harvesting system. Installing the system in our office is our first step towards it." Approximately 200 visitors will be able to access drinking water when they visit ward office on a daily basis.

Similarly, Kathmandu Municipality has been constantly making efforts to ensure the enforcement of building code. A national newspaper writes "The Kathmandu Metropolitan City office has begun on-site monitoring of under-construction houses to see if they are being constructed following the prescribed standards. The KMC has formed an inspection committee for the purpose."

Article 14.20 of Basic Guidelines on Settlement Development, and Urban Planning and Building Construction-2072 requires the category A and B buildings to compulsorily recharge of rainwater into the ground instead of connecting it to the sewer line, in order to receive building construction letter.

However, the knowledge about rainwater harvesting and ground water recharge needs more widespread awareness. The valuable rainwater has been draining out rather than being utilized or recharged. Under Rain Community project, GUTHI, a non-profit organization with the support of IRHA, Canton of Geneva, City of Geneva and City of Meyrin, under the Rain Community Project has been constantly promoting rainwater harvesting system as a sustainable approach to manage water issues prevailing in Kathmandu Valley. Installation of the RWH system at Ward no. 15 is a stepping stone for GUTHI and its partners to promote rainwater harvesting system; more revolutionary acts are yet to be accomplished.



Figure: Rainwater Harvesting System installed at Dallu Awasi, Ward No. 15

Children's Day celebrated by Planting Saplings

In Nepal, the children's day is celebrated on 29th of Bhadra which fell on 14th September this year. This day is celebrated with much enthusiasm, dancing and singing all over Nepal. But GUTHI and Eco Club at Viswa Niketan Secondary School decided to do something different and significant to mark this day.

The Eco Club at the school was formed by the students of high school i.e. grade 11 and 12 in order to conduct activities related to environmental conservation. So, after meetings between GUTHI, Eco Club and the Disciplinary In-charge, the plantation event was successfully organized. The school students from the Rain Club, formed under GUTHI's project Emergency Rain, were also actively involved.



The Eco Club members collected money and bought pots. There was about 155 pots on which plantation was done. GUTHI supported the cause by providing saplings for all the pots. The saplings mainly constituted flowering plants of different varieties. The students collected soil from the Bagmati river bank.

The students enjoyed the whole process. Doing something significant for their school and for the environment, they realized a sense of responsibility. They even wrote their names on the pots so that they can recognize theirs from others; and also so that they can take care of it in the future.

Along with plantation, students were also involved in cleaning up the school premises. They picked up wastes on the floor, swept the area, and removed weeds. Thus the students fulfilled as much duty as they can towards the school.



Figure: Viswa Niketan School's students participating in the plantation event

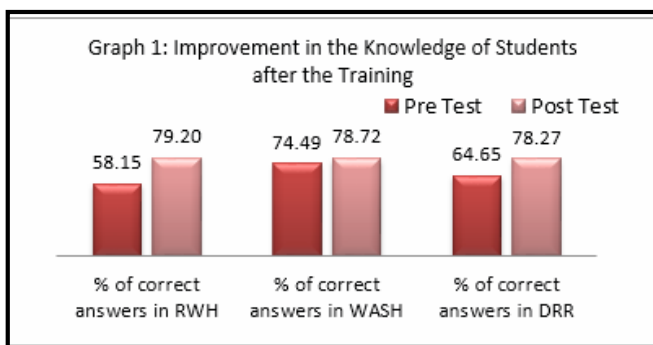
Analysis of Pre-Test and Post Test at Viswo Niketan Secondary School

A series of Training Sessions on Rainwater Harvesting, Sanitation and Hygiene and Disaster Risk Reduction were conducted at Viswo Niketan Secondary School in September 2017. Rainwater Harvesting (RWH) system has been installed in the school; but only a few students were aware about its components and factors involved with it. Thus, each and every class was individually attended to ensure that knowledge is effectively imparted in the children.

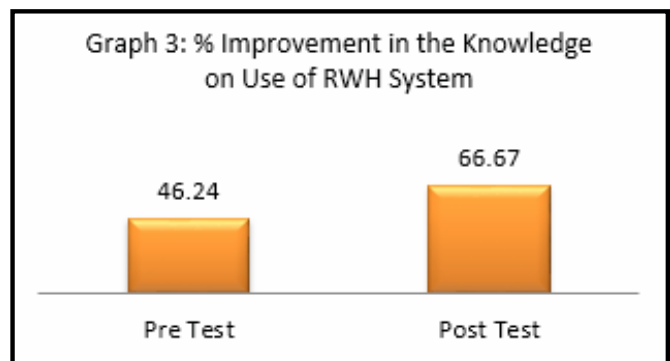
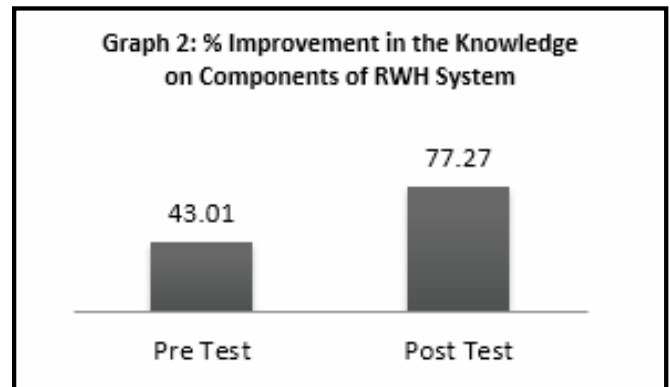
In this regard, Pre-Test and Post-Test were carried out in two sections of grade 9. These sections were selected with a view that they will be more mature and well-informed to effectively answer the questions. About 90 students were tested for both Pre and Post Tests. The test helped to analyze the level of change in understanding before and after the training session.

There were a total of 15 questions, 5 each relating to rainwater harvesting, WASH and disaster. The questions for both the pre and post test were kept the same, however the sequence was altered. The options were given such that more than one or even all options could be selected as the right answer. The analysis was done on the basis of marking system, with 1 point for each right option.

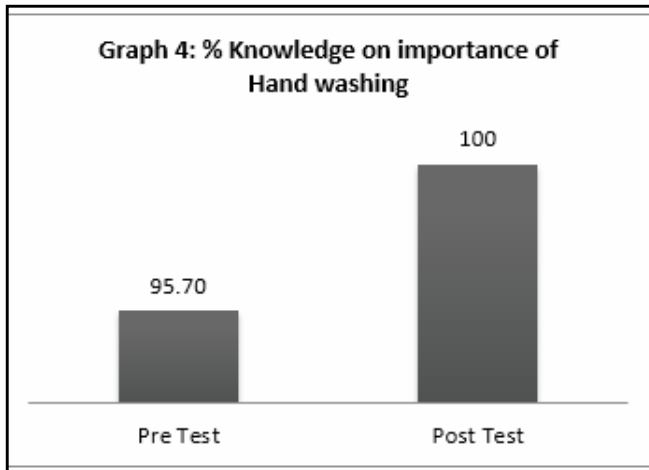
The test result showed that the overall percentage for incidence of correct answer increased from 65.63% in the pre test to 78.80% in the post test. Comparing the individual sections too, good improvement could be seen in the students (Graph 1).



The students were taught about the components of rainwater harvesting system, how it functions, its benefits and the ground water mechanism. The students were quite unaware of the components before; but an improvement could be seen after the training. The students now know the proper mechanisms of rainwater harvesting and its use; and the improvement has been portrayed in Graph 2 and Graph 3.

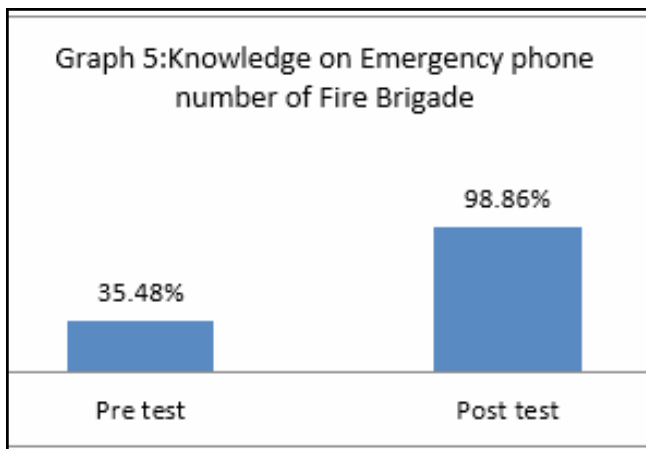


With the knowledge, the students will best utilize and conserve the system at the school and also replicate at their homes if possible. In sector of WASH, the students were taught about F-diagram, water purification, hand washing, communicable diseases and many more. There was good improvement but a remarkable change could be seen in the knowledge of hand washing where the students showed 100% result (Graph 4). Thus, WASH condition of the school can improve largely after the training.



Thus, this Pre and Post Test show that the training sessions were impactful. At a place like Kathmandu, where water shortage is a big problem, the knowledge about rainwater harvesting will certainly ease their water fulfillment efforts. Considering the economic status of the students and their living condition, information from the training will certainly keep them aware about the importance of hygiene and health. By teaching these young minds, we are not just teaching some handful of students, but making a big future.

The students were also taught about disaster risk reduction, how to prevent disaster and keep ourselves safe during any disaster. As it can be seen in Graph 5, the students are now aware of the emergency contact phone numbers like the ones of fire brigade, ambulance or police. So, in case of any emergency, the students will be able to response quickly and contribute in disaster risk reduction.



Voices

Trainings on Rainwater Harvesting, WASH and Disaster Risk Reduction was conducted in all grades from 1-10 at Viswo Niketan Secondary School in the month of Septmeber. The following voices have been collected from the students at the school:

1) Ayush Chaudhary of Grade 7 shared, "I will go home and share everything I learnt today with my parents, sisters and brothers. I will share about sanitation, disaster, efficient use of water, and rainwater harvesting. Today I also learnt about what we should do during a fire disaster, the emergency phone number of fire brigade, etc."

2) Mukesh Patel of Grade 10 shared, "I also learnt important information about menstruation. Now I will not feel shy to talk about this matter with my mother or sisters. I will aware them about the proper menstrual hygiene management."

3) Anita Oli of Grade 10 said, "When I first came to this school, the toilets were very dirty. So we complained it to the teachers, and they mended the toilets well. But, now the toilets are back to their damaged form; and this is because the students are vandalizing the school property. So, I believe it is everyone's responsibility and it takes collective effort to maintain the toilet. Training sessions like this will certainly help to change behavior of the students, and such trainings or activities should be conducted frequently."

4) In the focal group discussion on female friendly toilets conducted at VNSS, Anusha BK of class 10 shared, "Many girls need awareness regarding menstruation and menstrual hygiene. So, may be GUTHI can organize an awareness training to all the girls in the school. This will not only raise awareness about the menstrual health, but it can also result in cleaner toilets."



GUTHI
Ambe Complex, Teku, Kathmandu, Nepal
Phone no.: +977 01 4255040
Email: mail@guthi.net | Url: www.guthi.org
Fb: www.facebook.com/guthinp



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