



## Water Security in Peri-urban South Asia: Adapting to Climate Change and Urbanization



### Training On Rain Water Harvesting And Its Application In Domestic Uses For Lubhu VDC

Water Security in Peri-urban Areas, nec- Research Team organized two days training on rain water harvesting and its application in domestic uses for Lubhu VDC, a peri-urban site selected for pilot intervention. The training programme was organized, at nec-CPS premises in Balkhu. While organizing training, the focus was on including the participants from different age groups, occupation, ethnicity, gender involving both marginalized people as well as those with influencing capacity so as to make the training effective in contributing to help them face their water management challenges and disseminate the knowledge gained to increase awareness of the entire community on Rainwater Harvesting Techniques and applications. The programme was scheduled for two days on 18<sup>th</sup> and 19<sup>th</sup> June 2011.

Outsource facilitator was managed for the training from ENPHO (Environment and Public Health Organization) for effective conveying of the significance of Rain water harvesting and clarifying the doubts and misunderstanding about rain water harvesting from expert on rain water harvesting system. The team would like to acknowledge the NGOs, NGO Forum, Guthi, ENPHO, Sambridhi and Shuvata School for their help in conducting the training. As organizer, nec- team was involved in overall event management. With sharing of knowledge and experiences on the rain water harvesting practices made in Nepal and the neighboring countries, idea was to encourage participants to undertake this system as a tool for solving booming water crisis in the VDC.

The welcome speech was delivered by Mr. Rajesh Sada, Research Co-ordinator He welcomed all the participants from Lubhu VDC participating in the Training Programme. In his speech, he briefly highlighted the need and significance of Rain Water Harvesting (RWH) and its economical use during dry season.

The Rain Water Harvesting training offered instructions on the concept and technology of rainwater harvesting for domestic use and how it fits into the overall picture of appropriate rural and urban water supply linking the relevancy to the context of the existing situation in Lubhu VDC. Topics addressed included water optimization, common rainwater harvesting systems in Nepal, selection of appropriate rainwater harvesting technology, storing methods, contaminants in RWH system, treatment, maintenance and cleaning supply and the basic construction, installation, operation and maintenance of roof top and surface catchments including exercise on calculating harvestable roof rain water. Focus was also placed on recent technologies and innovative techniques to fit them into current applications. The training sessions were interactive with sharing of established practices in the local context and interrogative with queries on the confusions, doubts and intricacies associated with rain water harvesting arrangements.

The training included teachings on the fundamentals of rain water quality, household water optimization alternatives, social, economic and environmental considerations regarding rain water harvesting practices. A proper understanding of these elements is essential for the correct application of household rainwater harvesting systems. The training also introduced the global impact of clean water, hygiene and sanitation and linkage of climate change and changing rainfall pattern on implementing rainwater harvesting as reliable alternative water.

As the brochures could be very good means of conveying message on techniques and uses of rain water harvesting, brochures published by NGOs working for rain water promotion in Nepal and other relevant reading materials on rain water harvesting were provided in the training. Demonstration of rain water harvesting technique was made during the training session to fill up the knowledge gaps and communicate the requirements for a successful rainwater harvesting.

Post training an evaluation session was conducted where in the Questions regarding effectiveness of the training in upgrading their knowledge in the subject matter and motivating the participants to utilize RWH in daily life were

included. Five questions were included, each allocated a maximum of 5 marks and ranking was provided by the participants as per their satisfaction from the training. Simultaneously, recommendation for better management for future capacity building programmes were collected.

The evaluation is shown in the evaluation chart 1:

During the training, Prof. Shukla, Research Team Leader focused on rainwater (RW) harvesting through community participation for which he remarked that community participation can't be ignored towards RWH and is always an integral part of it giving examples from the neighboring countries. In the meanwhile, Mrs. Anushiya Shrestha, Research Assistant shared her views on importance of rainwater harvesting in recent time and presented the glimpses of regeneration of Darewadi in Maharashtra, India through rainwater harvesting. Field visits were conducted at the end of the training sessions for practical exposure on Rainwater Harvesting. There were two field visits, the first one was at Sambridhi Colony in Kirtipur to practically demonstrate rainwater harvesting at different households and the second field visit was at Shuvatara School in Lamatar VDC for understanding rainwater harvesting and storage components.

The training was appreciated by all the participants and some understandings shared during conversation in the post training lunch break were positive. Among the male and youths, there was interest in initiating activities oriented to constructing rain water harvesting ponds on community level and sharing the knowledge gained to gradually replicating the process in the entire VDC, while among the women groups integrating the simple household techniques of rain water collection to meet their daily domestic and farm needs was more appreciated.

In overall the training was carried out in a very organized manner. But the actual success can be celebrated only if post training utilization is practiced as with absence of utilization of knowledge gained, it is lost, thereby defeating the very purpose of the training, thus nec- research team are in the state of wait and watch to celebrate the success of Capacity Building Training on Rain Water Harvesting.

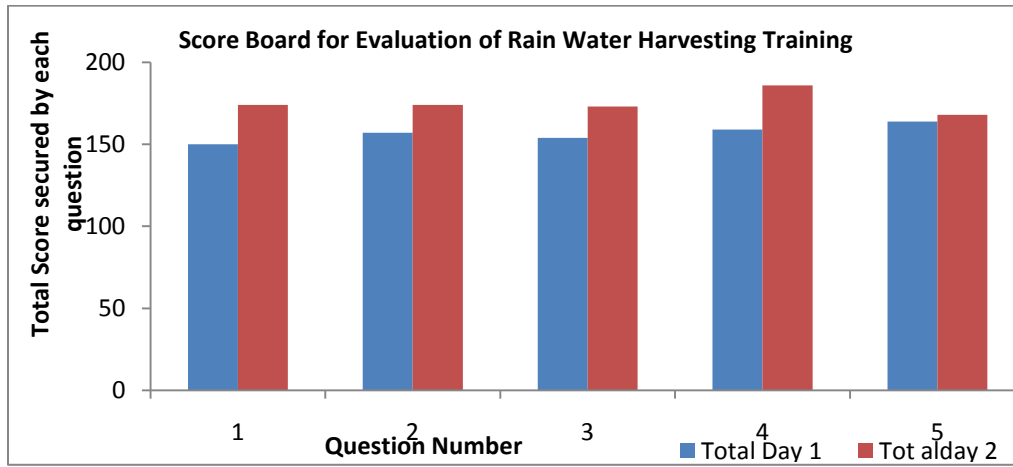
**Evaluation Questions:**

- i. *Has the training met your expectations on rain water harvesting techniques?*
- ii. *Has the training inspired you to undertake rain water harvesting?*
- iii. *How useful do you consider the presentations and reading materials provided in this training?*
- iv. *How do you consider about the facilitators effectiveness in communicating the message on Rain water harvesting?*
- v. *In overall, do you feel the training useful?*

**Recommendations:**

- *Applying rain water harvesting in the campus premises*
- *Providing training on Water quality and treatment techniques*
- *Disseminate training in other water scarce areas*

Chart 1: Evaluation Chart



**Participants in Training on Rainwater Harvesting for Lubhoo VDC**  
**Day 1: 18 June 2011**

<b>S.No</b>	<b>Name of Participants</b>	<b>Ward No</b>	<b>Phone No</b>
1.	Sunita Rawat	4 rawat Gaun	5582398
2.	Reshma Rawat	4, Chasi Dole , rawat Gaun	5582571
3.	Saraswati Shrestha	Lubhu, Town Plan	9841888075
4.	Yamuna Thapa	4, Chasi Dole ,	5582169
5.	Kopila Lama	4, Chasi Dole ,	9849404559
6.	Tulsa Thapa	Chasi Dole	5580627
7.	Manisha Thapa	Chasi Dole	5580949
8.	Ramila Thapa	Chasi Dole	5580780
9.	Kishor Gautam	Chasi Dole	9849224478
10.	Sundari Shrestha	Chasi Dole	9849400423
11.	Laxmi Rajyala	Chasi Dole	5582030
12.	Sajja Shrestha	Chasi Dole	9849400423
13.	Krishna Rajthala	Andole	9803742510
14.	Rupesh Rajthala	Andole,4	9849096845
15.	Gyanendra Rajthala	Andole,4	9808230508
16.	Sunil Ra. Ma	Devisthan, 5	9841483023
17.	Kanchi Thapa	Devisthan, 5	
18.	Indra Maya Shrestha	Dhaphal,2	
19.	Achyut Gautam	Dhaphal,2	9808794510
20.	Rupak Rajthala	Andole,4	9841665750
21.	Puspa Raj K.C	Dhaphal	9849160462
22.	Shrawaj Kumar Thala	Chasi Dole,2	9808047192
23.	Sabitri Gautam	Chasi Dole ,	9841503882
24.	Mira Gautam	Chasi Dole ,	
25.	Lila Tandukar		
26.	Kumari Maharjan		
27.	Sakuntala Shrestha		
28.	Nanu Thapa		
29.	Sanu Thapa		
30.	Sita Ram Gautam	4	5580412
31.	Bishnu Hari K.C	4	5580547
32.	Jeetendra Thapa	5	5580846
33.	Ranju Gautam	5	5580709
34.	Bijaya Gautam	2	5582164
35.	Durga Gautam	3	5580346
36.	Janaki K.C	4	9849612490
37.	Dibya Shrestha	5	
38.	Santa Gautam	3	5580807
39.	Uma Gautam	4	5580082

**Day 2: 19 June 2011**

<b>S.No</b>	<b>Name of Participants</b>	<b>Ward No.</b>
1.	Bishnu Hari Khatri	4
2.	Sita Ram Khatri	4
3.	Narayani Gautam	4
4.	Rachana K.C	4
5.	Sharada K.C	4
6.	Bidhya Shrestha	4
7.	Sabitri Thapa	4
8.	Bhagwati Thapa	4
9.	Ram Krishna Shrestha	2
10.	Rabina Shrestha	4
11.	Jagat Maya Shrestha	4
12.	Binod Thapa	3
13.	Rameshwor Gautam	5
14.	Bidur Singh Thapa	2
15.	Binaya Gautam	2
16.	Kushal K.C	2
17.	Anup Gautam	3
18.	Amir Thapa	4
19.	Birat Shrestha	4
20.	Salin Thapa Magar	4
21.	Uma THapa Magar	4
22.	Suniva Thapa Magar	4
23.	Aapsara Thapa Magar	4
24.	Manisha Basnet	4
25.	Sumitra Gatam	4
26.	Durga Gautam	4
27.	Mina Thapa	4
28.	Januka Sapkota	5
29.	Hira Sapkota	5
30.	Saraswati	5
31.	Usha Thapa	4
32.	Archana Thapa	4
33.	Damodar Gautam	3
34.	Kumar K.C	2
35.	Indra Shrestha	3
36.	Arjun Bahadur Thapa	4
37.	Nakul Bahadur Thapa	4
38.	Balram K.C	5
39.	Sabina Thapa	5