



School Led Safe Water, Sanitation and Hygiene Improvement in Mid-Western Nepal

Final Consolidated Progress Report (Jan 2011-March 2014)

Submitted by:
ENVIRONMENT AND PUBLIC HEALTH
ORGANIZATION (ENPHO)

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“School Led Safe Water, Sanitation and Hygiene Improvement in Mid-Western Nepal”

In short, termed as

Su-Swastha Project

Implemented by

Environment and Public Health Organization (ENPHO)

Implementing Partners

RMSO, DDC, DWASHCC, Birendranagar Municipality,

Ramghat VDC, Mehelkuna VDC, Sahare VDC, Kalyan VDC, Kaprichaur VDC, Maintada VDC

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Abbreviation

BCC	Behavior Change Communication	NMIP	National Management Information Project
BFAN	Bio-sand Filter Association Nepal	NMV	Nimna Madhyamik Vidhyalaya
BMC	Bazaar Management Committee	NSF	Normal Standard Filter
BNA	Beautiful Nepal Association	NTU	Nephelometric Turbidity Unit
BNM	Birendranagar Municipality	O&M	Operation & Management
BSF	Bio-Sand Filter	ODF	Open Defecation Free
CAWST	Centre for Affordable Water and Sanitation Technology	P/A	Presence/ Absence
CBO	Community Based Organization	PMC	Project Management Committee
CEO	Chief Executive Officer	PoU	Point of Use
CLTS	Community-Led Total Sanitation	PTA	Parents Teachers Association
CM	Community Mobilizer	PV	Prathamik Vidhyalaya
CSF	Colloidal Silver Filter	RC	Resource Centre
DAO	District Agriculture Office	RCNN	Resource Centre Network Nepal
DDC	District Development Committee	RMSO	Regional Monitoring and Supervision Office
DoE	Department of Education	RRHP	Rapid Response and Hygiene Promotion
DPHO	District Public Health Office	RWASHCC	Regional WASHC Coordination Committee
DWASH	District Water, Sanitation and Hygiene	SDE	Senior Divisional Engineer
DWASHCC	District Water, Sanitation and Hygiene Coordination Committee	SEIU	Sector Efficiency Improvement Unit
DWSS	Department of Water Supply and Sanitation	SETS	Science Environment and Technology Society
EAWAG	Swiss Federal Institute for Aquatic Science and Technology	SHP	Sub-Health Post
ECOSAN	Ecological Sanitation	SLTS	School-Led Total Sanitation
EDS	Environment Development Society	SMC	School Management Committee
ENPHO	Environment and Public Health Organization	SNV	Netherlands Development Organization
FCHVs	Female Community Health Volunteers	SODIS	Solar Disinfection
FGD	Focus Group Discussion	SPSS	Statistical Package for Social Science
FRC	Free Residual Chlorine	STAN	Science Teachers Association Nepal
GESI	Gender Equity and Social Inclusion	Su-Swastha	School-Led Safe Water, Sanitation and Hygiene Improvement in Mid-Western Nepal
GoN	Government of Nepal	SWASTHA	Safe Water, Sanitation and Hygiene for All
HDI	Human Development Index	SWC	Social Welfare Council
HFMOC	Health Facility Management and Operation Committee	SWM	Solid Waste Management
HHS	Households	SWOT	Strength Weakness Opportunity Threat
HMC	Health Management Committee	TLO	Tole Lane Organization
HP	Health Post	ToT	Training of Trainers
HPI	Human Poverty Index	TPD	Teachers' Professional Development
HSS	Higher Secondary School	TT	Teachers' Training
HWTS	Household Water Treatment and Safe Storage	UC	Users' Committee
IAP	Indoor Air Pollution	UNDP	United Nations Development Programme
ICS	Improved Cooking Stoves	UNHABITAT	United Nations Human Settlements Programme
IDE	International Development Enterprise	UNICEF	United Nations International Children's Emergency Fund
IEC	Information Education Communication	USAID	United States Agency for International Development
I/NGO	International Non-Government Organization	VDC	Village Development Committee
IR	Intermediate Result	VHW	Village Health Worker
KAP	Knowledge Attitude Practice	VIP latrine	Ventilated Improved Permanent Latrine
LDO	Local Development Officer	VWASHCC	Village WASH Coordination Committee
Lit/hr.	Liter per hour	WASH	Water Sanitation and Hygiene
MCHW	Maternal Child Health Worker	WASH-Mart	Water Sanitation and Hygiene Market
Mg/L	Milligram per Liter	WATSAN	Water and Sanitation
MoHP	Ministry of Health and Population	WET-C	Water Expertise and Training Centre
MoPPW	Ministry of Physical Planning and Works	WHO	World Health Organization
MoU	Memorandum of Understanding	WSP	Water Safety Plan
MV	Madhyamik Vidhyalaya	WUG	Water Users' Group
MWASHCC	Municipal WASH Coordination Committee	WWASHCC	Ward WASH Coordination Committee
NDWQS	Nepal Drinking Water Quality Standard		

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1 Actual and changing Context

1.1 Background

Access to safe water and sustainable sanitation is a major challenge in Nepal. According to the recent report shared by the Government of Nepal (2011)¹, water supply coverage has been substantially improved and currently stands at 80%. However, surveys showed that more than 80% of the drinking water supplies in rural areas are contaminated. As stated by Ministry of Health and Population (2007)², only 15.3% households (HHs) are practicing household water treatment methods before drinking. The report further assessed that more than 2 in 5 HHs in urban areas treat water prior to drinking, while that in the case of rural areas shows that only 10% of the total households practice household water treatment and safe storage (HWTS).

As for sanitation, GoN (2010)³ stated that only 43% of the people have access to basic sanitation by 2009. Lack of safe drinking water and poor sanitation and hygiene are the major causes of morbidity and mortality, particularly among young children. In Nepal, it is estimated that diarrheal diseases cause the death of 10,500 children under five per year. Furthermore, the “Sanitation and Hygiene Master Plan” states that the economic cost of poor water and sanitation in Nepal is estimated to be 10 billion rupees.

The challenges on safe water, sanitation and hygiene are prominent in the mid-western development region of Nepal. According to Nepal’s Human Development Report, the Human Development Index (HDI) for the Mid-Western Region is 0.452, which is the lowest among the five development regions of Nepal. Similarly the Human Poverty Index (HPI) for the region is 38.7 which is much higher than 35.4 for Nepal (UNDP, 2009)⁴.

According to the nation-wide water and sanitation surveys of 2010; the region’s water and sanitation access coverage is 76% and 31% respectively, which is less among all the other regions. Similarly, the data showed that the diarrheal cases under five years were found to be 260 in 1000 children, while underweight children under the age of five was 43.5% with infant mortality rate of 97, which are the highest among all the regions. The poor situation of sanitation and health in the region was exposed in 2009 when a cholera epidemic claimed the lives of more than 300 people. It was then found that there was only 55.90% use of soap with only 1.80 frequency of hand washing cases (MoHP, 2007; MoPPW, 2010 and NMIP/ DWSS, 2010)⁵.

In order to control this situation in Surkhet District, the Mid-Western Regional Monitoring and Supervision Office (RMSO) and District WASH Coordination Committee of Surkhet (DWASHCC) have set a target for achieving ODF declaration by 2014 and total sanitation by 2015. ENPHO is, hence, supporting the government’s plan through the project “School-Led Safe Water, Sanitation and Hygiene Improvement in Mid-Western Nepal”, also termed as Su-Swastha Project. The project is focussed in the catchment areas of 58 schools within five Village Development Committees (Ramghat, Kalyan, Mehelkuna, Sahare and Kaprichaur VDC) and three wards (ward no. 1, 2, and 11) of Birendranagar Municipality in Surkhet District. The project is implemented with the support from USAID and EAWAG/ SANDEC for 3 years since January 2011 to December 2013; with three months’ extension through March 31, 2014. Other supporters include government agencies such as Department of Water Supply and Sewerage (DWSS), RMSO, project VDCs, Birendranagar Municipality, local schools and communities of the intervention areas. This report, however, has been prepared to document the consolidated project progress (Jan 2011-March 2014) on achieving the targets set by the project through integrated community based WASH campaign.

¹ GoN (2011) *Water Supply, Sanitation and Hygiene: Sector Status Report, May 2011*. GoN: MoPPW, DWSS and SEIU.

² MoHP (2007) *Nepal Demographic and Health Survey, 2006*. New Era and Marco International Inc. Kathmandu: New Era, Nepal.

³ MoPPW (2010) *Sanitation and Hygiene Master Plan (final draft Nov 2010)* Kathmandu: Steering Committee for National Sanitation Action

⁴ UNDP (2009) *Nepal’s Human Development Report*. Kathmandu: UNDP

⁵ NMIP/ DWSS (2010) *A Survey Report on Nation-Wide WATSAN Coverage and Functionality*. Kathmandu: NMIP/ DWSS

1.2 Criteria for selection of Target VDCs and Wards of Municipality

The VDCs were selected in close collaboration with RMSO based on the following criteria:

- According to the NMIP/ DWSS (2010), the sanitation coverage in the project VDCs is only 17.4%, which is much lower than the national average (43%) and the district average (35.5%). The major means of excreta disposal in the villages is open defecation in nearby open land, jungle or river/ stream.
- Another reason for the selection of these VDCs is the large number of Dalit, who are generally poor and have been socially excluded and marginalized for a long time. The project-VDCs have a total population of 40,602 in 7,400 households according to NMIP data (2008)⁶. Out of total population, above one-fourth are Dalit and children under five years, that constitute 13.7 percent (NMIP/ DWSS, 2010).
- Likewise, the official data of NMIP report showed water supply coverage of 78.3% but during the dry season, there is an acute scarcity of drinking water and people are compelled to collect water from the available sources regardless of quality since most of the seasonal water sources dry up during summer.
- Drinking water supply schemes in proposed areas use open and unprotected surface sources likely to be contaminated anytime. Furthermore, these schemes don't have provision of water treatment facilities and the supplied water often get polluted with fecal matter during transmission, distribution or collection which is unsafe to drink.
- Most of the agencies are working in these VDCs but they are concentrated in one or two clusters only, focusing on ODF (Open defecation free). In order to meet the district target of declaring overall VDC as ODF and promoting safe water, health and hygiene issues, these VDCs were selected.

Table 1: Programme VDCs showing population and coverage of water supply and sanitation

S.N.	VDC	Households	Population			Coverage (%)	
			Total	Dalit	<5 years	Water supply	Sanitation
1	Kalyan	1,377	5,421	733	819	69.1	8.4
2	Kaprichaur	820	4,510	221	116	90.7	8.4
3	Ramghat	1,589	8,367	2,544	1,264	91.0	20.9
4	Mehelkuna	1,889	10,959	4,837	1,656	71.3	16.2
5	Sahare	1,725	11,345	2,483	1,714	69.3	33.0
	Total	7,400	40,602	10,818	5,569	78.3	17.4

Source: NMIP, 2008

On the other hand, the wards of Birendranagar Municipality were selected in coordination with the decision from RMSO, executive municipal staff and 'All Party Alliance' within the municipality. The selection was done as per the proposal of the municipality, conscience of the political leaders and the need analysis of selected wards conducted by the joint effort of Birendranagar Municipality and ENPHO on sanitation which is shown in Table 2 below.

Table 2: Need Analysis on sanitation of the wards selected under the conscience of RMSO, Birendranagar Municipality and 'All Party Alliance of the municipality.

Ward no.	Total Household	Permanent latrine	Temporary latrine	% of temporary latrine	Households with No latrine
1	686	258	211	30.76	217
2	632	285	152	24.05	195
3	448	275	100	22.32	73
7	316	247	24	7.59	45
11	1419	1199	87	6.13	133
12	374	319	17	4.55	38
Total	3875	2583	591		701

Source: Birendranagar Municipality/ ENPHO (2011)⁷

⁶ NMIP (2008) National Report on WATSAN coverage. Kathmandu: NMIP

⁷ Birendranagar Municipality/ ENPHO (2011) Ward-wise Need Analysis Record on Sanitation. Surkhet: Birendranagar Municipality.

Among the studied wards, ward number 1, 2 and 11 were found to be the ones which needed the most support. The municipality claimed that these were the most challenging wards since the community contained mostly Dalit and squatter residence.

2 Overall Goal and Intermediate Results

Overall Goal – Sustained improvement in Water, Sanitation and Hygiene (WASH) in the project areas.

Intermediate Results (IRs) –

Following are the **IRs** and **Sub-IRs** of the project activities:

IR1 – Prevent Infectious diseases through WASH improvement

Sub IR 1.1 - Enhanced supply chain of water and sanitation (WATSAN) materials

Sub IR 1.2 - Improved access to WATSAN facilities

Sub IR 1.3 - Enhanced capacity of Female Community Health Volunteers (FCHVs) and users' committees to deliver hygiene messages

Sub IR 1.4 - Improved hygiene behavior in the communities

IR2 – Enhanced local governance of WASH sector

Sub IR 2.1 - Strengthened capacity of local partners to advocate for WASH issue

Sub IR 2.2 - Enhanced coordination among government bodies, NGOs and other stakeholders in WASH sector

Other Activities

- Monthly Project Meetings
- Monitoring and Supervision
- Activities self-initiated by communities and schools

3 Approaches and Methods

ENPHO, together with various stakeholders and partners at National, Regional and local level, has been taking joint effort on supporting the Nepal Government for achieving total sanitation in Surkhet District by 2015. “*Su-SWASTHA*” is one of ENPHO’s projects at Surkhet which is focused on 5 VDCs and 3 wards of Birendranagar municipality. ODF declaration at these intervention areas and Sanitized SWASTHA (Safe Water, Sanitation and Hygiene for All) Community declaration at 10 selected communities within 5 project VDCs have been the main target. For attaining these targets and intermediate results pointed out in Section 2, ENPHO has been following the approaches and methods mentioned below. They, however, differ according to the needs, level of understanding and attitude of the community and/or *Tole* within the intervention areas.

- School led total sanitation (SLTS) approach
- Community led total sanitation (CLTS) approach
- Focus Group Discussions (FGD)
- School WASH intervention
- WASH supply chain and entrepreneurship development

- Promotion of household water treatment and safe storage (HWTS) options
- Promotion of Ecological Sanitation (ECOSAN) systems (such as urine diverting toilets, ECOSAN toilets and biogas attached toilets)
- Behavior Change Communication (BCC) campaign
- Participatory Village WASH Coordination Committee (VWASHCC) plan
- Participatory Municipal WASH Coordination Committee (MWASHCC) Strategy
- Child Club Mobilizations and School Plan
- Water Safety Plan (WSP)
- Networking and coordination with stakeholders and partners such as project VDCs/ VWASHCC, Birendranagar Municipality/ MWASHCC, RMSO, District Public Health Office (DPHO), District Development Committee (DDC), District WASH Coordination Committee (DWASHCC), Regional WASH Coordination Committee (RWASHCC) and community groups

It has been found that no single approach has been able to bring change in the community. Throughout the project intervention period, combination of two or more approaches along with multiple front line workers were essential to convince the community towards applying WASH interventions. All these approaches and methods are to ensure that project activities reflect local needs with gradual transformation. It is believed that the participatory approaches by including the households, communities including marginalized and informal settlements, VWASHCC, MWASHCC and institutions within the intervention areas will make them own the project and its outcomes.

4 Implementation Framework

Overall, the project is managed by ENPHO with guidance from RMSO, DWASHCC, MWASHCC, VWASHCC, other local government bodies and local partner organizations. The coordination committees supported in coordinating efforts among key partners and monitoring the project’s progress.

At the field level ENPHO will mainly work through schools and local community groups, as well as frontline workers such as female community health volunteers (FCHVs) and women’s group, who will be the main implementing agencies to reach out to the community. The overview of the implementation framework is presented in Figure 1.

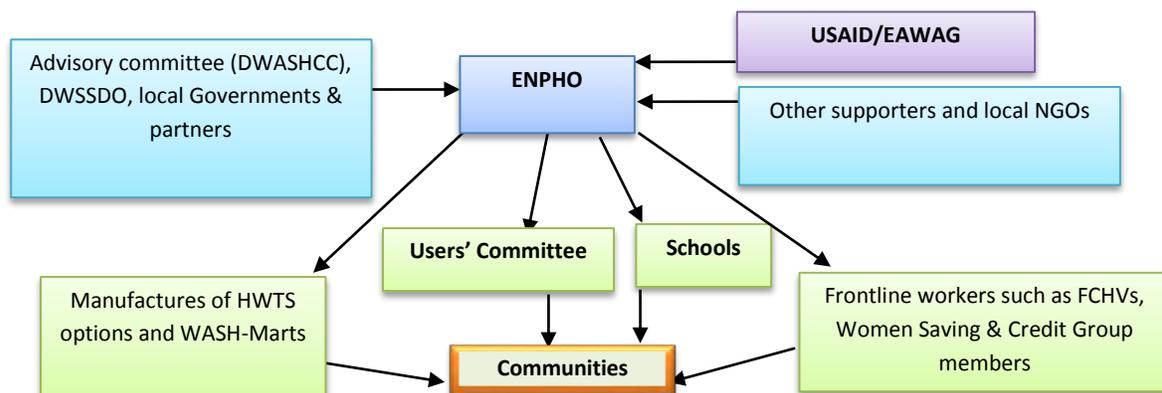


Figure 1: Overview of Implementation Framework

5 Human Resource and Office Arrangements

Within 2 years' project intervention period, ENPHO appointed 23 staff. However, with the completion of the project activities, only 16 staff were retained till the end of the project for the extended period of January-March 2014⁸ which is listed in Table 3 below.

Table 3: Assigned personnel for Su-Swastha Project management and implementation

S.N.	Assigned Personnel	Designation	Based at
1	Dr. Suman K. Shakya	Executive Director	ENPHO Central Office, Kathmandu
2	Mr. Prajwal Shrestha	Program Manager	ENPHO Central Office, Kathmandu
3	Mr. Niranjan Pradhan	Admin and finance Manager	ENPHO Central Office, Kathmandu
4	Ms. Purnima Shakya	Project Coordinator	ENPHO Central Office, Kathmandu
5	Mr. Ram Bilas Pant	Field Coordinator	ENPHO Field Office, Birendranagar
6	Ms. Bandana Shrestha	Accountant	ENPHO Central Office, Kathmandu
7	Ms. Radha Devi Subedi	Assistant Field Coordinator	Project VDCs, Surkhet
8	Mr. Niraj Man Shrestha	Assistant Finance Officer	ENPHO Field Office, Birendranagar
9	Mr. Shushil Nhemhaphuki	Jr. Engineer	ENPHO Field Office, Birendranagar
10	Mr. Janak Bhandari	Sub-Overseer	ENPHO Field Office, Birendranagar
11	Mr. Rom Harsh Oli	Community Mobilizer (CM)	ENPHO Field Office, Birendranagar
12	Mr. Megh Bhr. K.C.	CM	ENPHO Field Office, Birendranagar
13	Mr. Khim Prasad Sharma	CM	ENPHO Field Office, Birendranagar
14	Mr. Bhim Bahadur Khatri	CM	Project VDCs, Surkhet
15	Mr. Deepak Kumar Paudel	CM	Project VDCs, Surkhet
16	Mr. Om Bahadur Chunara	CM	Project VDCs, Surkhet

ENPHO established a site office at Jahare, Maintada VDC in 2011 which was shifted to Chhinchu VDC and then to Birendranagar Municipality for better coordination among the staff, private sectors and local government agencies for increased WASH advocacy. For the initial few months, ENPHO set up a field office at Kaling Chowk, Birendranagar Municipality for overall monitoring and coordination at both district and municipal level. During the establishment of the Resource Centre at the RMSO, one of the ENPHO staff was appointed almost a year and half for managing the networking, documentation and monthly bulletin "*Sarsafai Sandesh*" of the Regional WASH Coordination Committee (RWASHCC) and RMSO.

6 Intermediate Results: Project Progress

The project was launched in the district level before its implementation on 5th April 2011 at the Birendranagar Municipality. Refer Annex I for the proceeding of the launching program. The CMs (two in each VDC) were then appointed on May 2011. Training of Trainers (ToT) on WASH was organized for the CMs from 10th–14th May 2011 in order to enhance their capacity on various WASH approaches and methods pointed out in Section 3. Refer Annex II for the proceeding of the training. Refer the sub-sections below for the details of the activities conducted under each intermediate results set for the project through Jan 2011 to March 2014.

⁸ Staff list updated on Jan 2014

6.1 IR1: Prevent infectious diseases through WASH improvement

6.1.1 Sub IR 1.1 – Enhanced supply chain of WATSAN materials

The materials for the community and school WASH improvements were processed by the Users' Committee through the mutual agreement with VWASHCC and MWASHCC and thorough local market research. MoU's were signed with schools, health centers and water users' group for infrastructure rehabilitation, addressing the contribution of the institution, community as well as the project.

Activity 1.1.1 Conduct baseline survey, gender assessment and KAP study

Sub-Activity i Baseline Survey and KAP at five VDCs

Baseline survey and KAP (Knowledge Attitude Practice) study were conducted at three levels within the project areas with the objective of identifying the existing WASH situation before the intervention.

1. Household level
2. Institutional level (School and Health posts)
3. Su-Swastha Community

1. Household Level:

A baseline survey was conducted at five project VDCs (Kalyan, Sahare, Kaprichaur, Mehelkuna and Ramghat) and three wards (1, 2 and 11) of Birendranagar municipality, in coordination with RMSO, VWASHCC and MWASHCC. The primary sampling unit was 10% of the total households in the selected cluster with representation from both Dalit and households with children under 5 years age. A structured questionnaire survey form was developed and field staff were orientated on methods of collecting baseline data on June 5, 2011 at Jahare field office. Similarly another orientation was provided to the chief of Tole Lane Organization (TLO) and Female Community Health Volunteers (FCHV) of the municipality on June 24, 2011. The total population of the surveyed households was found to be 5187 residing in 937 households. Detail of the result of baseline survey is presented in Annex III.



Baseline Survey conducted at the household level in mid-2011 (left); at institutional level in early 2012 (center); and selected Su-Swastha Community in mid-2012 (right)

Since the sampling was done with only 10% of the total population, the data was highly skewed and unrealistic. Hence, NMIP data of 2008 was followed (Table 1). Realizing this mistake, data on sanitation coverage was taken for 100% household at the municipality level in coordination with MWASHCC (Table 2). On the other hand, for the overall WASH baseline survey at six wards of Birendranagar was proposed by the MWASHCC, 1487 HHs out of total 3875 were surveyed (almost 40%) for more realistic data. Refer Annex IV for the survey report of Birendranagar Municipality.

2. Institutional Level:

The existing WASH situation of schools and health posts (HP) within the project areas were also surveyed. In the case of schools, the survey was conducted as proposed and jointly approved by RMSO, MWASHCC and VWASHCC. During the survey, it was found that almost 70% of the schools lacked safe water supply and improved sanitation facilities through there were presence of water source and toilets. The survey also revealed that 87% of the schools lacked hand washing station and 67% had no provision of solid waste management at their premises. The detail survey report for school WASH is in Annex V.

While in the case of health center survey, it was found that none had proper and safe water supply and only three Sub-health posts (SHP), namely Ramghat, Kalyan and Kaprichaur had toilets in good condition. Refer Annex VI for the survey report.

3. Su-Swastha Community

The survey for Su-Swastha community with SWASTHA indicators was conducted at 100% households of the selected clusters. Altogether 10 communities were selected within the project VDCs as proposed by the respective VWASHCC. Refer Annex VII for the detail survey report.

Sub-Activity ii Gender Assessment in five VDCs

Issues related to gender was collected from the project areas where interaction was done with local people of 55 clusters comprising of male, female, children, youth and old aged people. The discussion was divided into 3 parts:

- Role of gender in water management,
- Role of gender in managing health and hygiene condition,
- Role of gender in toilet construction.



Interaction with local people to discuss issues on gender

- **Role of gender in water management**

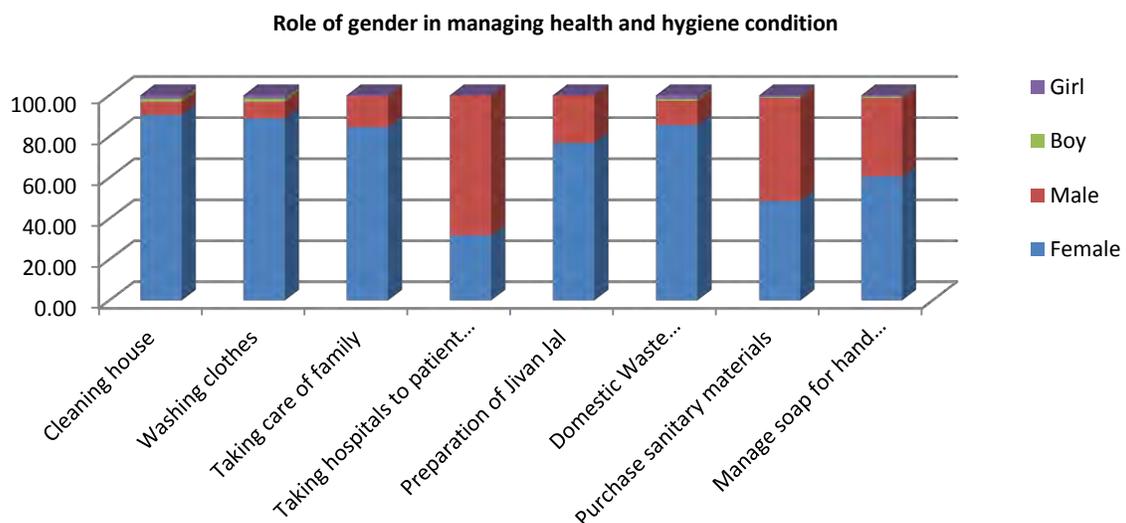
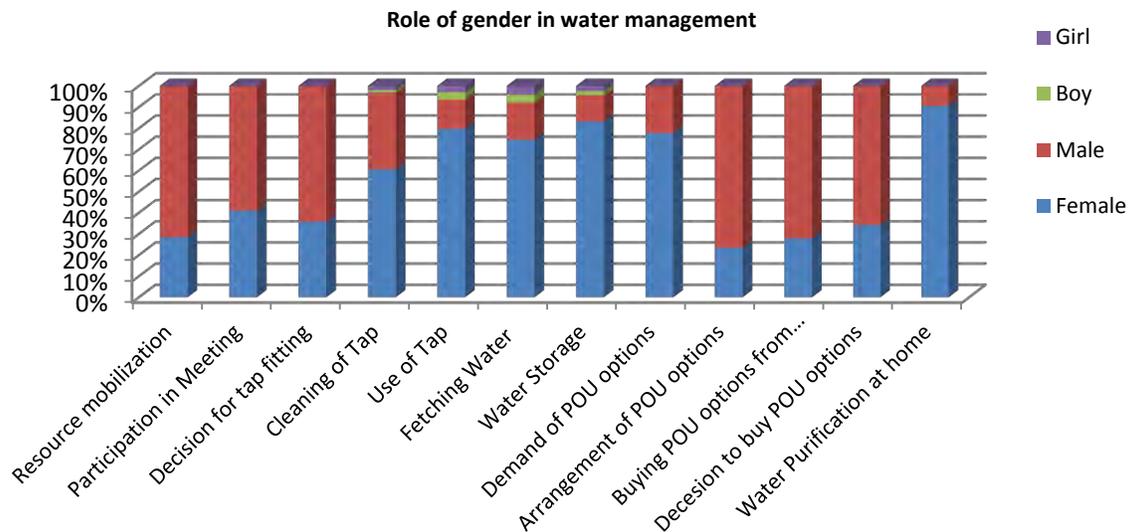
Water related issues were discussed during the interaction and it was found that most of the female members were engaged in household activities such as cleaning of tap, fetching water, storing water, meeting demand of water purification options at home and using water treatment options. Most of the male members of the family were involved in decision making process such as resource mobilization, participation in meeting, decision for buying PoU options, fitting tap etc.

Interaction was also focused on workload between boys and girls. It was found that girls were more overloaded than boy in several activities such as cleaning, fetching and storing water in the households. Refer the graph below which shows the role of men, women, girls and boys in water management at household level. This shows the distinct work division between male and female.

- **Role of gender in managing health and hygiene condition**

The graph below represents more workload for female who take overall responsibility of the health and hygiene condition of the family members and their surrounding environment. However, it was found that the male members were more active in taking patients to hospitals.

The graph showed that there is equal role between male and female on purchasing sanitary materials. While comparing the role between boys and girls, it was observed that girls were busier in improving health and hygiene condition of the family.

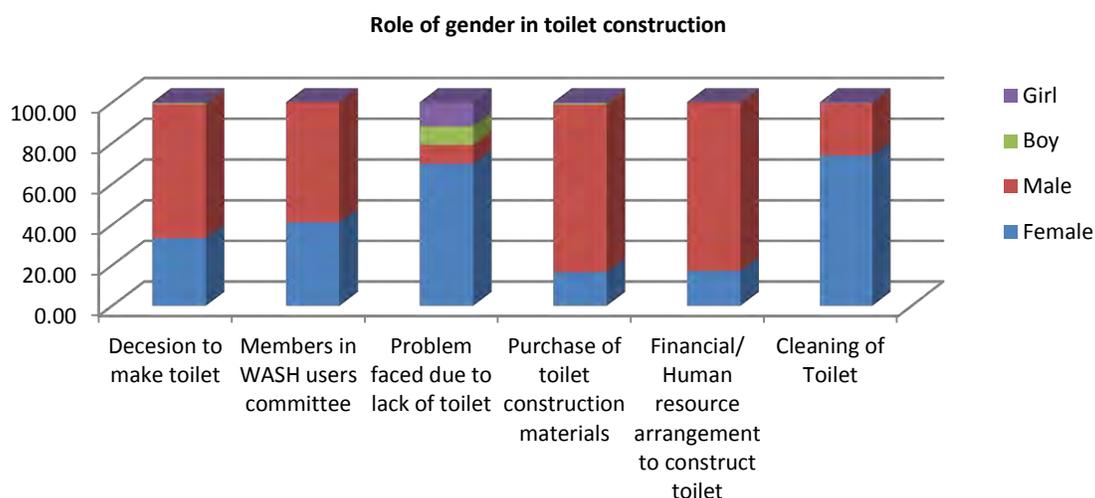


• **Role of gender in toilet construction**

According to the graph, it was found that female members faced more problems (69.84%) than male (9.25%) when there is no toilet in the household. Comparing boys and girls, girls (12%) have to suffer a lot than boys (9%). However, constructing toilets depends upon the decision making process, arranging financial/ human resources for toilet construction and purchasing toilet materials by the male members, hence, making them the overall responsible person. It has also been found that male members are more in users' committee (UC) than female.

This assessment has been conducted to tap the gaps and needs of the community. The project plans to fill the gaps by addressing gender equity in capacity building trainings and decision making processes so that women entrepreneurship could be developed and their voices could be heard. Similarly male members will be given equal

orientation on health, sanitation and hygiene so that gender mainstreaming could be achieved at every level. ENPHO followed its own GESI policy regarding this.



One good example worth mentioning here about closing the gap between male and female members regarding WASH issues and decision making process is shown in Sub IR 1.4 Activity 1.4.4 Sub-Activity iv. It was found from the beneficiary number that female community members participated more in the orientations on safe water, health, behavior, sanitation and decision making process for constructing toilets. Apart from that FCHVs and Mothers' Group are being equally mobilized for women empowerment and gender equity.

Sub Activity iii Impact Study

Impact study of the project has been conducted during the final quarter of 2013. The draft report of the study is attached in Annex VIII.

The report has shown that the access to latrine has increased from 43.88% (baseline) to 100%; while that of improved kitchen facilities from 40% (baseline) to 60%. It was also found that more than 50% individual from each VDC consume treated water apart from Kalyan (20%) due to lack of knowledge and laziness. It was shown from the report that 100% have heard about the HWTS options from the trainings, orientations and peers. The study also depicts that 100% households in Su-Swastha area consumed filtered water while those of non-Su-Swastha area still use traditional concept like boiling and cloth filtration.

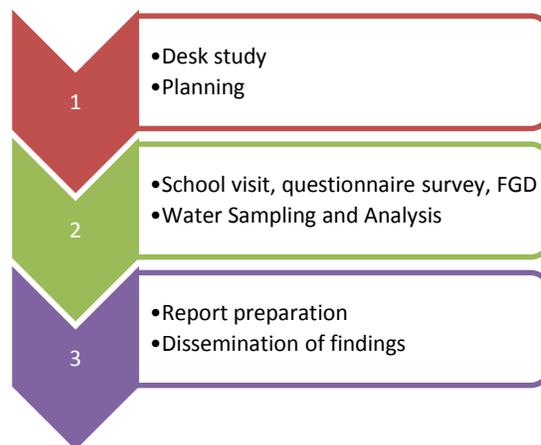
Sub Activity iv Case Study Collection and Publication

Case Studies throughout the project intervention areas and the outreach areas such as Maindata VDC and Chinchu VDC were collected since mid-2012 till the end of 2013. Among those, selected ones were compiled and published for regional and national level sharing within the first quarter of 2014. Refer Annex IX for the final publication.

Activity 1.1.2 Assess the Effectiveness of School PoU Water Treatment in Dang and Design PoU systems in 55 schools

Sub-Activity i Develop methodology and design for study

In order to assess the effectiveness of school PoU options in Dang and Kapilvastu, an agreement was signed between ENPHO and WHO. The major activities conducted within the assessment include: discussion with school management committee and child clubs, interview with teachers and caretakers of PoU options, observation and water quality testing. In order to achieve overall objective of the assessment, methodology was developed with three main steps:



Step 1: Desk study and planning

Step 2: Visit, survey, FGD, sampling and analysis

Step 3: Report preparation and dissemination

Sub-Activity ii Conduct study at the selected schools

The study was conducted at the selected 50 schools within Dang and Kapilvastu to identify critical factors that affected continuous use of school PoU options.

Sub-Activity iii Data entry/ Analysis/ Final Report

From the assessment study of PoU options at schools, following conclusions were made:

- Only 14 out of 50 schools visited were using at least one POU options. The discontinuity is particularly due to the failure of Colloidal Silver filters (CSF) after a year, lack of O&M and lack of regular monitoring and supervision;
- 40% (5 out of 13) of large CS filters not removing any coliforms was very concerning and required immediate attention;
- Clay CS Filter showed excellent fecal coliform removal (however number of samples were only 3);
- In most of the cases, filter user were found satisfied with taste, smell, look and temperature of treated water. While comparing the preference between CS filter and bio-sand filters (BSF), the study showed most of the people preferred BSF. Refer the analysis table 4;
- Most of the schools are still willing to re-operate the system and ready to contribute if needed;
- Filter operation and maintenance was found satisfactory;

In order to scale up promotion of PoU options at schools, following key recommendations were pointed out in the study report. Refer Annex X for the detail report:

- Before scaling up promotion of PoU options in schools, there is the need to:
 - Install robust filters/systems;

Table 4: Analysis of physical properties between CSF and BSF

Properties		Teachers		Students		Operator	
		CSF	Bio-sand	CSF	Bio-sand	CSF	Bio-sand
Taste	Bad						
	Same	√		√		√	
	Better		√		√		√
Smell	Bad						
	Same	√		√		√	
	Better		√		√		√
Look	Bad						
	Same	√		√		√	
	Better		√		√		√
Temp.	Bad						
	Same	√		√		√	
	Better		√		√		√

- Develop strong monitoring mechanism at local level;
- Ensure availability of spare parts and strengthen supply chain;
- Explore possibility of improvement and protection of water sources;
- Provide refresher trainings/orientation to school teachers, operators and child club members
- Possibilities of Chlorination in schools having water tanks and using dug wells should be explored and recommended if feasible;
- Filters/systems should be installed based on the need and demand from school;
- Filter O&M should be done only by trained operators and school teachers; NOT by child club members;
- Need to perform water quality monitoring of PoU options on a regular basis.

Assess the condition of BSF promoted at Surkhet (not targeted)

The condition of BSF promoted at 57 schools of project VDCs and 2 schools of Birendranagar Municipality were assessed within the first quarter of 2014 though it was not mentioned in the project activity. This activity was conducted due to three major reasons:

1. It was deemed necessary for the proper use and sustainability of the installed filters before the hand-over process.
2. Request from the schools to evaluate the condition of their filters.
3. It was observed during the field visit in Dec 2013 that among the total 10 schools monitored, filters at two of the schools were not functioning.

The main objectives of this assessment were:

- To find out the condition of the filters.
- To revise the effectiveness of the orientations provided to the school assistants in 2013.
- To provide refresher on the operation and management of the filters.

The assessment has shown that 100% BSF were installed by the entrepreneur at 58 schools, while the collection tanks were provided by respective schools. During the study, it was found that 25 filters (at 10 schools) among the total of 84 distributed were not in use at all due to leakage (40%), improper installation (40%) and lack of proper management by the schools (20%). It was found that 83% of the total schools had filters with proper standards, such as good flow rate (2.30 minutes); 74% had standard water level (5 cm) above the sand level; 77% had levelled top sand layer and almost all the filters had good conditioned diffuser.



BSF and collection tank: In good condition and covered properly (left); operated after re-installation by the mason with uncovered collection pot (right)

During the assessment, one of the masons was provided by the local BSF entrepreneur, who supported on managing the water level, sand level, leakage and proper installation at the 10 schools with 25 filters that were not

in use. Apart from that one-to-one orientation to the school assistants and interested teachers on operating and proper maintenance of the filters were provided to all the schools. During the course, 58 school assistants, 47 students and 51 teachers were provided refreshers. The orientation topic included not only O&M but also the importance of proper, clean and covered collection tanks. They were informed about maintaining the standards of BSF.

The assessment showed that 65% of the total distributed filters were in regular use and 90% of the schools have provided operating knowledge of BSF to their students aged more than 12 years. During the interaction with the school assistants and participants, it was revealed that 23% schools use chlorine in the filtered water before consuming, 95% of them said the water tastes and smells better than before; almost 100% said that the appearance was better and it has also improved their health condition as well. They said that they would recommend the filters to others since it removes iron, coliform and turbidity.

During the observation of the filters, it was found that the 100% BSF and collection tanks were clean and inside the room. However only 55% of the collection tanks were covered by lid. Proper instruction and regular monitoring has helped the schools on improving the management of the filters.

Activity 1.1.3 Water Quality Testing

Sub-Activity i Conduct water quality testing at the sources and communities of school catchment areas of 5 VDCs

a. Pre-Test

Preliminary water quality testing at 44 different sources of the project VDCs was completed within May-August 2012 by the CMs after provided them half-day orientation on the use of test kit. The quality test was conducted using ENPHO Water Test Kit for detecting Chlorine (FRC), pH, temperature, iron, ammonia, chloride, nitrate, and total hardness; P/A vials for detecting Coliforms and ENPHO Calcium Test Kit for detecting Calcium Hardness.

According to the study done at 44 different sources (including taps, spring, reservoir, and pipelines) within four project VDCs, it was found there was a high prevalence of coliform (almost 97.73%). The other physical and chemical components were within the WHO guideline benchmark at Kalyan, Mehelkuna and Kaprichaur.

At Ramghat, it was found that there was high iron content in three sources, one reservoir had high ammonia content and three sources had high calcium content. On the other hand, it was found that there was high iron content at tap water of Sahare while 75% of the water sources had high calcium content. The tabular analysis is shown in Annex XI.

b. Post-water quality testing

The post-water quality testing after WSP intervention and PoU promotion has started since mid-June 2013 by ENPHO's laboratory expert Mr. Manorath Bajgain (pictured below, right hand side). A mini lab was prepared at



Water Quality testing conducted at Sahare by CM Mr. Bhim Bhr. Khatri

Chhinchu VDC for the tests for almost a month and a half; from mid-June to July 2013. The research on both the water quality testing and efficiency of the promoted PoU options were conducted and attached in Annex XII.



Post water quality testing: Water collection from the source (left); water quality testing by laboratory expert Mr. Manorath Bajgain at Chhinchu (right)

For physio-chemical and microbiological analysis, the study included analysis of water on alternative days for a month from four BSFs, four CSCFs and one NSF (only one found in the purposive sample cluster area). 30 samples (15 raw and 15 treated) were tested from each filter counting to altogether 270 samples i.e. 120, 120 and 30 samples from BSF, CSCF and NSF respectively. The method used was purposive sampling. Besides, 56 raw water samples from the sources of the project VDCs were analyzed. For assessing social acceptance of the filters, 572 questionnaires were filled and the responses analyzed using Statistical Package for Social Science (SPSS 16.0).

Results of physio-chemical and microbiological analysis of samples from different filters suggested that iron removal efficiency of entire filters were comparable i.e. 91% for BSF, 89% for CSCF and 84% for NSF for water with raw iron concentration >0.3 mg/L (National drinking water quality standard, NDWQS for iron is 0.3 mg/L). Similarly, comparison of turbidity removal efficiencies yield that for turbidity values >5 NTU, efficiencies of the filters were similar for all the filters which were 92% for BSF, 93% for CSCF and 89% for NSF (NDWQS for turbidity is 5 NTU).

The analysis of water from the sources indicated that the main problem associated with raw water is fecal coliform contamination. Since most of the water sources were unprotected surface waters, it was highly possible that the water gets contaminated with human or animal wastes.

For BSF, most of the samples i.e. 35 out of 60 belonged to "Raw CFU >100 " category. Of the total 60 (treated) samples, 55% (33 out of 60) of the treated samples were found to be crossing the NDWQS for fecal coliform i.e. the CFU count of fecal coliform in these samples were >0 . Most of the treated samples that were contaminated with fecal coliform were the samples with raw water CFU count of fecal coliform >100 . The study clearly showed that 50% BSF has the tendency to remove 99% coliform while the remaining 50% with 100% removal.

In case of CSCF, of the total 60 (treated) samples, only 2% (1 out of 60) of the treated samples were found to be crossing the NDWQS for fecal coliform. In case of NSF, of the total 15 (treated) samples, 80% (12 out of 15) of the treated water samples were found to be crossing the NDWQS for fecal coliform.

However, the comparative study between pre and post analysis showed that water quality has significantly improved after the use of PoU options. The questionnaire analysis also reflected that almost all the filter users were satisfied with the product and the improving health. There were few exceptions who preferred raw water due to taste and negligence and laziness on using the product.

Sub-Activity ii Prepare analysis report with appropriate PoU options to be promoted

The water quality analysis showed that it is highly essential to promote Chlorine solutions and filters, particularly CS candle filters and bio-sand filters to overcome the effects of biological and physical contamination. The PoU options to be promoted are briefly pointed out in both pre and post water quality analysis reports.

ENPHO has been promoting Piyush/ Piyush+, CS candle filters and bio-sand filters at various project intervention areas since September 2012. The promotion of Piyush is taking place in large scale through CRS Company at the health posts of the VDCs. Whereas CS candle filters are being promoted at the households of ten Su-Swastha communities. This has been promoted through Madhyapur Clay Crafts Pvt. Ltd. On the other hand, promotion of plastic and ceramic bio-sand filters has been commenced at the school level within the project areas since October 2012 through Mr. Mahendra Pandey of Bhagwati Traders.

The filter analysis through questionnaire survey for studying the social acceptance of the filters conducted in 2013 showed that people were aware about the importance of safe drinking water and the filters were commonly used in every household of Su-Swastha communities. While Normal Standard Filter (NSF) users' said that treated water from the filter was sufficient, only 95% of BSF users and 88% of the CSF users said that treated water was sufficient. However, in all the sampled areas (purposively at Su-Swastha), except Sahare, the most commonly used filter is CSCF.

Responses in the survey suggested that all the filter users, irrespective of the type, reported that treated waters were better in taste, color, odor and turbidity. However, among the three filters, the highest mean rating was observed for CSCF regarding the improvement in the above aesthetic parameters. When the respondents were directly asked about the level of satisfaction from the filter use, though the mean ratings were similar (1.43 for NSF, 1.45 for CSCF and 1.78 for BSF; value closest to 1 means highest satisfaction) for all the filters, the highest was observed for NSF.

The most convenient filter based on affordability, availability, installation and operation was found to be NSF filter whereas CSCF is most difficult to be available, install and operate. Similarly, survey revealed that it was easier to pour raw water and collect treated water from NSF compared to CSCF and BSF. Refer detail report in Annex XII.

Activity 1.1.4 Assess needs of HWTS producers

Sub-Activity i Identify local PoU producers and entrepreneurs

Local masons were identified who were interested on producing BSF in early 2012. Entrepreneurship was developed by training the masons and providing them with BSF mold (frame). The detail of the training is described in Activity 1.1.6. After the training Mr. Mahendra Pandey from Jahare-3, Maintada VDC (located between Ramghat and Mehelkuna) has been continuing the production since mid-2012. So far, Mr. Pandey has produced and distributed plastic bio-sand filters at remote areas like Kaprichaur and few schools of Sahare while concrete filters at Birendranagar, Ramghat, Mehelkuna, Kalyan and the remaining schools of Sahare. Apart from the project areas, Mr. Pandey has been promoting the filters at Maintada, Chhinchu and Kunathari VDC.



Mr. Pandey with his product of concrete bio-sand filters

According to the need assessment of filters done in 58 schools within the project VDCs and Birendranagar Municipality, it was found that there was requirement of altogether 34 plastic filters and 50 concrete filters. As per the water demand and density of the students, it was required to promote one filter per primary school, two per lower secondary/ secondary schools, and three to four per secondary to higher secondary schools.

In the case of CSF and Chlorine solution, there are no local producers. Hence ENPHO made business link between the producer and distributors through interaction in the case of CSF (however, this refers only the filter casing from Nepalgunj to the local distributing markets). For the Chlorine solution, ENPHO is promoting Piyush/ Piyush+ and distributing through local distributors such as CRS Company, medical shops, health posts and WASH-Marts for consumer accessibility.

Sub-Activity ii Organize meetings with PoU producers to assess needs

The first series of meeting was held with the PoU producer Mr. Hari Govinda Prajapati and local distributor Tara Bhandar Pasal, separately for need assessment in early 2012. From the meetings it was said that the initial distribution should be handled by ENPHO to reduce transportation and handling costs. It was found that neither the producer nor the distributor wanted to bear the extra cost and take any risks until people were aware about the necessity of CSF.

The second series of meeting was conducted in September 2012 with Mr. Hari Govinda Prajapati. But the opportunity on supplying the product at Birendranagar was declined. The alternative options were either to develop local distributor who will be willing enough to distribute the filters from producer to the consumers or to develop local entrepreneurs. However, both the concept could not accelerate due to minimal interest of the producer.

The third series of meeting was conducted with Mr. Prajapati on 17th December 2012 to find the solution of CSCF supply chain. ENPHO invited Mr. Prajapati to meet the distributor of Maintada VDC to find appropriate link for sustainable PoU promotion at the VDC level. The meeting was cancelled by Mr. Prajapati due to his lack of interest. Hence, ENPHO took the responsibility on CSF candle distribution. On the other hand, meeting with International Development Enterprises (iDE) Nepal has been conducted on 8th and 25th Jan 2013 to explore on private sector involvement for PoU promotion, and getting ideas on supply chain mechanism and guideline preparation.

Since Normal Standard Filters (NSF) were easily available in Surkhet at affordable cost than CSF, it was proposed by the community for its promotion. Before the promotion, ENPHO conducted a survey on filter efficiency between NSF, CSF and BSF. Even the study showed that NSF was the most convenient one based on availability, affordability, installation and operation. Refer Annex XII for the detail report. Even after the project completion, two types of filters were popular at Surkhet; 1. NSF and 2. BSF.

Activity 1.1.5 Develop and Improve New HWTS Options

Sub-Activity i Develop detail methodology for research of CS filter

Ms. Bernice Scholten, Bachelor student of Wageningen University Research Centre, conducted study on “Comparison of the capacity of colloidal silver coated candle filters, with different colloidal silver coating and flow rates, to effectively remove E. coli and total coliforms”. The research concluded that the red CS candles contained more colloidal silver coating with high



CSF candles researched at ENPHO Lab

efficiency of coliform removal than the white ones. The minimum requirement of flow rate to remove the microbial pathogens was set as 1-4 lit/hr., 4lit/hr. being the rare case. However, it has been clearly stated by the WHO that the research should be done at the local context for better results.

Sub-Activity ii Perform intensive research at ENPHO lab

Ms. Scholten conducted the intensive research at the ENPHO lab on the CSF candles.

Sub-Activity iii Produce final research report

The detail finding of the research conducted by Ms. Scholten is presented in Annex XIII. The red CS candles were promoted by ENPHO at the household level within the Su-Swastha communities. However, the promotion was dropped out after mid-2013 due to following complications:

- Frequent breakage of the candles and the plastic base
- Difficulty to access candles quickly due to limited production by Madhyapur Clay Crafts
- Lack of interest on distribution to Surkhet WASH-Marts by the entrepreneur Mr. Hari Govinda Prajapati of Madhyapur Clay Crafts
- High transportation cost
- With the increasing demand, increase in the price of candles

Activity 1.1.6 Train Perspective Manufacturers of HWTS Options (target: 1, achieved: 2)

Sub-Activity i Identify local PoU producers and entrepreneurs

Sub-Activity ii Finalize list of participants

Sub-Activity iii Conduct training

Under Activity 1.1.6, local masons were identified within the project VDCs and the periphery areas who were interested on constructing BSF. Altogether 28 masons were approached among which 15 showed keen interest and commitment for the training. These 15 masons were provided with 5 days' BSF training at Fulbari Guest House of Birendranagar Municipality from 2-6th April 2012. The participants were trained on constructing concrete BSF. Refer Annex XIV for the proceeding of the training. However, it was later found that all the masons from the first training have left the country for foreign employment in India.



BSF training to local masons from 2-6th April 2012

Second series of 5 days' training was provided to two selected masons (Mr. Mahendra Pandey and Ms. Pabitra Oli) at Jahare, Maintada VDC from 18th-22nd June 2012 on concrete bio-sand filters. Third series of refresher training was provided to local entrepreneurs of Bhagwati Cement Itta Tile, including Mr. Mahendra Pandey of Maintada VDC from 7th-10th September 2012. This refresher training was organized to improve the quality of the construction of both concrete and plastic bio-sand filters. Mr. Pandey has been continuing the production and distribution of the filters at the schools of the project areas after the agreement on 19th September 2012. The concrete bio-sand filters were promoted at areas with good road accessible while plastic ones at remote areas such as schools of Kaprichaur, Sahare-1&2, Kalyan-1,2&6 and Mehelkuna-7, 8 & 9.

Activity 1.1.7 Strengthen the Supply Chain for HWTS Options

Sub-Activity i Conduct market survey

ENPHO commenced the market survey for strengthening of HWTS options in 2012 and prepared short term PoU market strategy. Refer Annex XV for the strategy which has been followed to systematically approach the producers and distributors. The meeting outputs have already been pointed out in Activity 1.1.4 Sub-Activity ii. The approached companies and markets throughout the project intervention are pointed out in Table 5 below.

Table 5: Local Markets promoting HWTS options

S.N	Approached Producers/ Distributors	Based at	Output	Remark
1	BSF entrepreneur Mr. Mahendra Pandey trained by the project	Jahare-3, Maintada VDC, Surkhet District	Interested on production	BSF collected by the consumers. Fitting and transportation borne by producer.
2	Madhyapur Clay Crafts, Mr. Hari Govinda Prajapati	Madhyapur Thimi, Bhaktapur	Interested on CS candle production	Distribution could be done up to Nepalgunj. The initial distribution from Kathmandu to Surkhet to be handled by ENPHO. Not continued.
3	Tara Bhada Pasal (Dealer), Mr. Nanda Dahal	Birendranagar Municipality, Surkhet District	Interested on providing filter casing only	-
4	Rishi Raj Traders	Nepalgunj	Interested in bulk distribution	Local markets where the company distributes the filters were identified and approached for HWTS promotion.
5	ENPHO, Piyush	Baneshwor, Kathmandu	Interested in both production and distribution	Various health centers, medical stores and WASH-Marts for local distribution.
6	WASH Marts	Chhinchu, Mehelkuna, Sahare and Kaprichaur	Interested in distribution	Selling of BSF, NSF, Piyush and demonstration of SODIS

Sub-Activity ii Support local entrepreneurs to develop marketing and production strategy

With the support from WET-C ENPHO and CAWST, local entrepreneurs of BSF all over Nepal were provided with business strategy and supply chain process by two leading business hubs Smart Paani and Mice Aid. Altogether 19 participants (16 male and 3 female) benefited from the program.

The sessions were facilitated by Dr. Betman Bhandari of CAWST, Mr. Suman Shakya of Smart Paani and Mr. Anil Thaman of Mice Aid. The participants shared their experiences and prepared general plan for business development of BSF. Refer Annex XVI for the proceeding report.

Marketing and supply chain strategy on HWTS has been prepared under the research project "Assessment on HWTS products under the Su-Swastha Project" supported by EAWAG within Sept-Nov 2013. The final report is attached in Annex XVII, which briefly pointed out the SWOT analysis and possible supply chain for HWTS promotion at Surkhet district.

Following the similar learning, ENPHO has developed a guideline and training manual on WASH-Mart promotion and supply chain mechanism for supporting the continuation of the WASH-Marts established within and at the periphery of the project areas. The guideline and manual was prepared and finalized after incorporating the suggestions and groups works conducted during the two days' training to the WASH-Mart entrepreneurs. Refer Annex XVIII for the training report and Annex XIX for the final design of the manual.

Sub-Activity iii Production and marketing

Bio-sand Filters (BSF):

Intensive production of Bio-sand filter has been continued by the local entrepreneur trained by the project, Bhagwati Traders and Suppliers of Maintada VDC. The filters have been distributed and fitted at the schools within the intervention areas with the support of the project. However, the filters were supplied after the schools provided a collection tank/ jar for the filtered water for each class/ grade.

Initial marketing was done by ENPHO through awareness programmes at the community and school level; trainings on PoU and HWTS options; IEC materials production and distribution; and through radio programmes and jingles. By the end of 2013, entrepreneurs are marketing the project at household level, local shops, business centers and hotels through WASH-Marts and advertisement in newspapers.



BSF advertisement by entrepreneur in local newspaper

Apart from Surkhet, BSF promotion has been extensive in 75 districts of Nepal with collaborative support from the ENPHO WET-C, Government of Nepal, UNICEF, Coca Cola, UNHABITAT, Red Cross and CAWST.

Colloidal Silver Filter:

The production of CSF candles was limited due to only one production house at Bhaktapur. The filter casing for the CSF was distributed with the support of the project at the Su-Swastha Community. The candles were bought by the community with the cost of NRs 300 which was collected by each Su-Swastha Committee for strengthening their community group on WASH and other development sector, which is reported in Table 6.

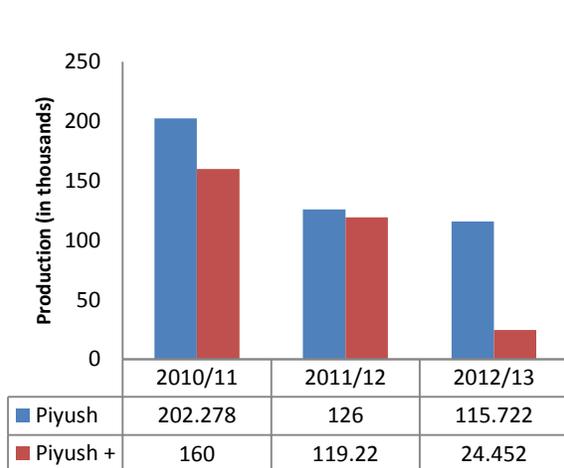
Table 6: Investment of the collected amount from the candles

S. N.	Su-Swastha Committee	VDC	Investments on	Remark
1	Ragmale Tole	Ramghat	ICS promotion	Remaining cost in the Su-Swastha committee fund
2	Rolpali Tole	Ramghat	ICS promotion	
3	Bhandari Tole	Ramghat	ICS promotion	
4	Ramghat-7	Ramghat	ICS promotion	
5	Chhitali	Kalyan	ICS promotion	
6	Thotri	Kalyan	ICS promotion	
7	Kachurghari	Kalyan	ICS promotion	
8	Labana	Kalyan	ICS promotion	
9	Bhalukhola	Sahare	ICS promotion, construction of Shiva temple, hand-washing provision	
10	Dapcha	Sahare	Hand-washing platform	Self-initiated and the collected cost has been saved in the fund
11	Ratamata	Sahare	ICS promotion and bridge construction	Remaining cost in the Su-Swastha committee fund
12	Gozibazaar	Kaprichaur	ICS promotion, dish-washing and hand-washing provision	
13	Nangi	Mehelkuna	ICS promotion, Culvert construction	

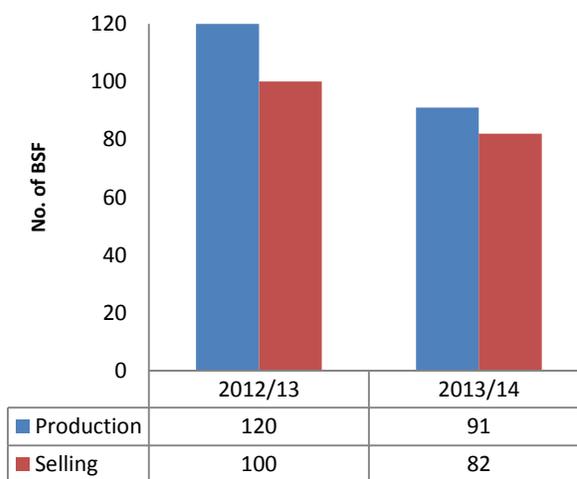
Due to the lack of marketing interest and limited production, the market of CSF has been replaced by normal standard filters. ENPHO recommends the use of CSF due to its efficiency and effectiveness on coliform removal. However, the distribution of the product should increase to make the marketing more viable and the product more accessible. The marketing for the filters and other products are done by the WASH-Marts and distributors themselves.

Chlorine Solution:

ENPHO is producing Piyush and Piyush+. The graph below shows the production and selling of the product as per the demand from various projects and organizations since 2010. Among the total production, only 1700 Piyush and Piyush+ have been distributed free of cost which is 0.22% of the total production. According to the dispatch list, 80% of the total Piyush and Piyush+ has been produced for emergency situations (supplied through DWSS, Nepal Red Cross and UNICEF) while the rest is sold through CRS company. On the other hand, the second graph showed the comparison between the production and distribution of BSF. Among the total distributed list, total 15 were sold by the entrepreneur at business centers such as hotels, WASH-Marts and other shops of Chinchu, Maintada and Birendranagar; 46% was distributed at schools of Su-Swastha project while the remaining for various other projects of ENPHO at Maintada and Kunathari VDC. The details of BSF are listed in sub-activity iv. It has been said that Helvetas has approached the entrepreneur for the distribution of BSF at its project sites of Mid-Western Region.



Piyush and Piyush+ production



BSF Production Vs Distribution List

Sub-Activity iv Provide continuous support to strengthen their capacities to produce and promote HWTS at local level

Regarding Sub-Activities ii, iii and iv; the production of HWTS options had taken place according to the community and institutional need basis. With the increasing demand, production and distribution has simultaneously increased. Refer Table 7 for the overall distribution list.

Apart from the project sites, altogether 15 business oriented consumers (hotels and shops) have bought BSF. Among those, six are at Chinchu, three at Maintada, one at Sahare, one at Mehelkuna and four at Birendranagar Municipality. Due to the high cost of BSF, people rarely tend to invest on the product.

However, the importance of the filters have been realized by the community due to which people have been convinced in buying standard candle filters for their daily usage. The community, users' committee and Su-Swastha Committee are linked with the WASH-Marts for purchasing the filters.

Table 7: HWTS production and distribution list

S.N	Product	Distribution Record					Total Distribution record	Consumers	Production supported by
		March -June 2012	July-Dec 2012	Jan-June 2013	July-Dec 2013	Jan-April 2014			
1	BSF	20	35	45	35	47	182	Maintada VDC, Kunathari VDC, all schools within the project intervention areas, hotels and shops at Chhinchu, Maintada and Birendranagar.	Su-Swastha and ENPHO
2	CS Candles	-	98	404	-	-	502	Su-Swastha Communities	Su-Swastha
3	Filter Casing	-	98	404	-	-	502	Su-Swastha Communities	Su-Swastha
4	Piyush	500	500	500	250	-	1750	Project VDCs and samples for WASH-Marts	ENPHO

- Supply Chain of HWTS options

a) Piyush:

Sole distributor of Piyush, CRS company, buy the product at the cost of NRs. 11.50/ piece (excluding transportation cost) while the market price is NRs. 20/ piece. The distribution by CRS Company has been commenced since June 2008 with annual contract renewal. The retailers have the profit of NRs. 2/ piece. During the epidemic season (June-August), production is accelerated as per the need basis. Even Government of Nepal and various other INGOs (UNICEF, UNHABITAT) distribute it free of charge at areas with frequent epidemics. In the project VDCs, ENPHO distributed Piyush to support the campaign "Epidemic Free Nepal".

CRS Company distributes Piyush in both Traditional Outlets (TO) like business markets, shopping centers and medical shops; and Non-Traditional Outlets (NTO) like health posts to make the outreach more feasible for the community. The product is transported once in two months and as per the demand of the retailers and health posts. Similarly, Mothers' Groups at wards of municipality were provided Piyush by ENPHO at the cost of NRs. 15/ piece and they sell it at NRs. 20/ piece with the profit margin of NRs. 5/ piece. This was experimented for a month. This was soon dropped out since the negative message went into the community about ENPHO making profit by selling Piyush.

To make this more sustainable, schools and health posts were oriented on motivating teachers, students and FCHVs on using and promoting the product. Similarly, regular orientations were conducted at the household level by the field staff on the importance of using HWTS options; which are discussed in detail in IR 1.3 and IR 1.4.

b) Bio-Sand Filters:

Bio-sand filters of capacity 20 liters are being promoted at the entire schools within project VDCs under PoU promotion through the project. Each filter cost NRs. 3000 (excluding tax) and the schools have done the agreement to bear the cost for storage tank or bucket of 20-50 liters per filter.

Apart from project areas, the BSF entrepreneur has informed that the demand has been increasing gradually through advertisements.

c) CSC filters:

The price for selling the colloidal silver candle and standard filters on the retail price has been drafted at NRs. 1500/ piece. The standards filters are easily available at Surkhet and affordable as compared to CSF.

d) WASH-Mart Establishment and promotion:

WASH market has been established to strengthen the supply chain of HWTS and sanitation options after the market survey for the possible business. Two days' training on supply chain and business model for the WASH marts was conducted on 18-19th March 2014. Refer Annex XVIII for the training report; and Annex XX for the WASH-Mart list and the products that have been sold by the local markets.



One of the WASH-Marts promoted at Chhinchu

Sub-Activity v. Research on Efficiency of Filters

Research on the efficiency of various filters against raw water was conducted at the sources of project areas. Both qualitative research through questionnaire and quantitative research through laboratory analysis were done which have been presented in Activity 1.1.3. Refer Annex XII for the final report.

Sub-Activity vi. Supply chain link between the distributors in Nepalgunj and Surkhet

The link between the distributor Rishi Raj Traders of Nepalgunj has been connected with the filter retailer Tara Bhandra Pasal of Birendranagar Surkhet for the distribution of standard candle filters. Apart from that six WASH marts have been established among which two are at Chhinchu, one at Sahare, one at Mehelkuna, at Maintada and one at Kaprichaur VDC. During the WASH-Mart establishment, supply chain from Nepalgunj, Butwal, Bhairahawa to Surkhet to Gumi has been linked. Refer Annex XIX for the WASH supply chain linkage.

6.1.2 Sub IR 1.2 – Improved Access to WATSAN Facilities

Activity 1.2.1 Improve WASH Practices in the Schools and its Catchment Areas, with Child-friendly and Gender-Sensitive Facilities (target 54 schools, Achieved: 58 schools)

Sub-Activity i Need assessment for identifying need of WATSAN improvement at selected schools

Sub-Activity ii Prepare WATSAN improvement plan of schools

Sub-Activity iii Detail design and cost estimation of construction activities

Under Activity 1.2.1 Sub-Activities i, ii and iii, the preliminary need assessment for identifying general need of WATSAN improvement at the selected schools was conducted during the school baseline survey. An overseer was then appointed to prepare WATSAN improvement plan of the schools and conduct detail design and estimation of the construction activities. The progress of the school WASH intervention is attached in Annex XXI.

Sub-Activity iv Agreement with Schools

As per the detail estimation for the improvement of school WASH facilities, mutual agreement was signed between the project and respective school. Roles and responsibilities of both the parties are clearly mentioned on the agreement where project will provide technical and economic support while the schools should implement as per the plan based on technical estimation. It was agreed that 80% fund will be provided by the project and the remaining 20% will be contributed by the school.

The agreement has clearly stated that the school should establish an operation and management (O&M) as well as awareness fund to be managed by School Management Committee (SMC) and child club. All the schools engaged on WASH intervention deposited the matching fund. The starting fund deposited was NRs 8000 where the school deposited 50% of the total while the remaining amount was supported by the project. Besides, the agreement also motivated the schools by announcing to support NRs 10,000 to those schools which will be able to declare their catchment area as SWASTHA zone. Laxmi NMV of Labana, Kalyan-7 got this support. Refer Annex XXII for the agreement.

Sub-Activity v Improvement of WATSAN facilities



Latrine rehabilitation, Source protection, child-friendly hand washing platform and water supply pipeline installation at Nepal Rastriya NMV, Mehelkuna-8. Before intervention (left) and after intervention (right)

WASH interventions at 56 schools of VDCs and 2 schools of Birendranagar Municipality have been completed. Regular monitoring was conducted with necessary feedback by the technical staff until the hand-over of the interventions. Refer Annex XXI for the improvement progress which showed that 19 schools have been supported with sanitation facilities while 51 with water supply facilities.



Gender friendly latrine constructed at Tripureswor HSS of BNM-2 (left); Urinal constructed at Jana Sewa NMV of Sahare-4 (center); and child friendly tap and hand washing station at Saraswoti MV of Sahare-8 (right)

The entire project schools have also been supported with either concrete or plastic bio-sand filters while the cost of the collection tank has been borne by the respective schools. As per the agreement between the project and the institution, it was stated that the collection tank was compulsory and the filters would be collected back if the

tanks could not be installed. In most of the schools water was collected at traditional *gagri* with grades of each class inscribed; as per agreed with the schools.



Visitors (left) and teachers (right) using the bio-sand filters provided at the schools

For the proper operation and maintenance of these filters, one day orientation training was organized at Kaprichaur on 12th March 2013. Altogether 11 teachers and school assistants from 8 schools of Kaprichaur attended the event. The orientation for Sahare and Mehelkuna was conducted on 3rd June while that for Ramghat and Kalyan on 4th June at Machhapuchhre Hotel. Field staffs were also oriented on BSF installation as refresher on 11th Dec 2013 at Jahare, where 14 staff were benefited (8 male and 6 female). The sessions were focused on risks of contamination, PoU options, demonstration on bio-sand installation and daily handling process.

Each school have been provided with O&M fund of NRs 4000 and child club fund of NRs 4000 after the matching fund of the similar amount have been deposited by each school in their respective account. During the BSF monitoring at each schools, the masons refitted 25 BSF and provided refresher to 58 school assistants and interested 47 students and 51 teachers. The detail has been presented in Activity 1.1.2 Sub-Activity iii.

The achievement has been more than target (54 schools) since one school within the VDCs was missed out during the planning phase and Jana Sewa School of Sahare was separated into NMV and HSS later on by the District of Education. The two selected schools by the MWASHCC at Birendranagar which lied under the Su-Swastha project area were also added in 2012, making the total achievement of 58 schools.

Sub-Activity vi Water Supply Scheme at Ramghat-7

Ramghat Community Water Supply Scheme was commenced at Ramghat-7 in early 2014. The construction was completed and handed over to the Users' Committee by Mid-March 2014. Among the overall estimated scheme of collection, sedimentation and distribution tanks; RVT collection tank was supported by the project. The Users' Committee has taken the responsibility on distributing the water to the HHs after chlorination. Refer Annex XXIII for the MoU done with the Users' Committee and Annex XXIV for the detail design and estimation report.



Ramghat Water Supply information board (left) and RVT tank installed (right)

Activity 1.2.2 Support Project Intervention Areas on ODF Declaration

Sub-Activity i Conduct orientations to VWASHCC and MWASHCC (target: 5, achieved: 6)

In order to capacitate VWASHCC and MWASHCC members on the issues of sanitation campaign and to declare VDCs and the municipality as an ODF zone, an orientation program was provided to the members of the respective coordination committee. Altogether 113 VWASHCC members and 31 MWASHCC members were oriented on different triggering tools to ignite and inspire community to construct toilet. They prepared and followed their respective action plans for making ODF declaration and WASH intervention possible. Table 8 below shows the details of the orientations conducted at various levels. Refer Annex XXV and XXVI for the participatory VWASH and MWASH strategy prepared after incorporating the actions plans of each VDC and municipality respectively.



One of the orientations conducted for VWASHCC members of Ramghat VDC

Table 8: Orientation to the members of VWASHCC and MWASHCC

S. N	Date	VDCs	Total participants			Remarks
			M	F	Total	
1	June 29, 2011	Mehelkuna	15	10	25	Financial support from RMSO and technical support from ENPHO
2	July 1-2, 2011	Ramghat	14	11	25	Financial support from DDC and technical support from ENPHO
3	September 3-4, 2011	Kalyan	17	17	34	Financial and technical support from the project
4	September 8-9, 2011	Kaprichaur	11	4	15	Financial and technical support from the project
5	September 21-22, 2011	Sahare	10	4	14	Financial and technical support from the project
6	January 16, 2012	Birendranagar	27	4	31	Financial and technical support from the project
TOTAL			94	50	144	

Sub-Activity ii Conduct monthly VWASHCC and MWASHCC meetings regarding ODF declaration

Regular VWASHCC and MWASHCC meetings have been conducted at the project VDCs and municipality respectively. The frequency of the meetings, however, varies according to the place and need. Table 9 below shows the meetings conducted from throughout the project. The updated meeting minutes are with the respective VDC secretary and Municipal Chief Executive Officer (CEO). Most of the MWASHCC and DWASHCC meetings are organized by the committees as per the need. Almost all the meetings were focused on safe water promotion, sanitation planning, WASH strategy, ODF and post-ODF mechanism.



VWASHCC meeting at Ramghat (Left), Kalyan (center) and Kaprichaur (right)

Table 9: Frequency on meetings conducted by VWASHCC and MWASHCC

S.N.	Project Area	Meetings				Total meeting organized	Frequency
		2011	2012	2013	Jan-March 2014		
1	Ramghat	26 events	17 events	7 events	3 events	53	Once a month
2	Kalyan	8 events	8 events	9 events	2 events	27	Once a month
3	Mehelkuna	10 events	10 events	9 events	2 events	31	Once a month
4	Sahare	4 events	17 events	3 events	2 events	26	Once a month
5	Kaprichaur	5 events	12 events	9 events	2 events	28	Once a month
6	MWASHCC, Birendranagar	4 events	2 events	4 events	2 events	12	Once in a quarter
7	DWASHCC, Birendranagar	-	3 events	14 events	-	17	Once in a quarter

The work plan on post ODF plan along with the commitment for its achievement was finalized by the respective VWASHCC during the post-ODF refresher workshop conducted at each VDC. Refer Annex XXVII for the compiled summary report of the events and Annex XXVIII for the consolidated post-ODF plan. The commitments were handed over to the respective VDCs during the VDC wise closing workshop.

Sub-Activity iii Conduct joint monitoring with VWASHCC members, WWASHCC members, FCHVs and School Management Committee

A joint monitoring team was formed on March 2012 with the initiation from ENPHO and the respective WASH Coordination Committees. Table 10 shows the core team finalized by VWASHCC members for regular monitoring and evaluation. As per the decision of VWASHCC and MWASHCC, monitoring was conducted on a regular basis as shown in Annex XXIX.

Table 10: Joint Monitoring Core Team

Project Area	Monitoring team	Purpose
Ramghat	VDC Secretary, VWASHCC member, WWASHCC member, ENPHO	Promotion of sanitation facilities, identification of ultra-poor HHs and deliver message of upgrading toilets from temporary to permanent
Kalyan	VWASHCC member, political leaders, FCHVs, ENPHO	HH toilet status, identification of ultra-poor HHs and SLTS
Mehelkuna	VWASHCC members, ENPHO	HH toilet status
Sahare	VWASHCC member, FCHVs, local enumerators, ENPHO	Selection of ultra-poor HHs, SLTS
Kaprichaur	VWASHCC, WWASHCC, ENPHO	HH toilet status and identification of ultra-poor
Birendranagar	MWASHCC member, political leader, Chairperson of WWASHCC, ENPHO	Promotion of sanitation facilities and decision for ODF declaration

With the help of joint monitoring, ODF declarations and the data updated by the FCHVs and the CMs of ENPHO, it has been reported that sanitation coverage has reached 100% in entire project intervention areas by the end of March 2014 as pointed out in Table 11 below. Refer Annex XXI for the detail data records.

Table 11: Household Toilet Progress Status

S.N	Project Areas	THH	Toilet status before intervention		Overall Toilet status								Total constructed (Before and After Project intervention)	ODF declared on
					Permanent (P)							T		
			P	T	Improved Pit latrines		VIP	ECOSAN			Biogas attached toilets			
					Personal	Shared		Dry	Wet	with biogas				
1	Ramghat	1509	198	134	941	22	167	3	23	4	233	116	1509	24th June 2013
2	Kalyan	1229	18	98	1133	17	0	0	0	0	0	74	1224	8th May 2013
3	Mehelkuna	2100	15	291	1888	45	0	0	1	0	15	120	2069	21st June 2013
4	Sahare	2262	452	117	2001	22	0	0	1	0	0	220	2244	27th Dec 2012
5	Kaprichaur	592	1	30	491	0	87	0	0	0	0	14	592	23rd April 2013
6	Birendranagar -1	867	258	211	852	9	0	1	0	0	6	0	868	28th March-14
7	Birendranagar -2	645	285	152	616	6	0	0	0	0	21	2	645	18th Dec 2013
8	Birendranagar -11	1587	1199	87	1474	38	0	0	0	0	57	18	1587	2nd Sept 2013
Grand Total		10791	2426	1120	10738								10738	

Sub-Activity iv Develop criteria for declaring ultra-poor household

Poverty ranking indicators were set as the criteria for declaring the household as ultra-poor. The major criteria included:

- Unemployment
- Economically weak family who have to survive on daily wages
- Household with single mothers or widows who have no financial support
- Orphans and helpless people/ differently abled
- Squatter community (above conditions apply)

According to the VWASHCC/ MWASHCC meetings conducted at the project areas, it was found that total 873 households were categorized as ultra-poor. Among them, 37% lie within the three wards of Birendranagar Municipality.

The selection of the ultra-poor took place in each tole of each ward through an open forum discussion within the community. The initial selection of the ultra-poor HH was done by the community which was proof-red, monitored and cross-checked, and then finalized by the respective WASH coordination committee.

Sub-Activity v Support ultra-poor households for constructing latrines

Support for the ultra-poor households to construct latrines has been conducted with the joint co-operation between the project and the respective VDCs/ municipality. Each VDC has its own strategy regarding this and also for the material distribution. ENPHO have committed on supporting the materials worth NRs. 1000 to NRs. 1700 as per requirement. Table 12 shows the strategy followed by each VDCs on providing support to the ultra-poor HHs through the decision of VWASHCC and MWASHCC.

Table 12: Ultra-poor HHs

S.N.	VDC/ Municipality	Ultra-poor HH	HH contribution	Subsidy	
				Project	VDC/ BNM
1	Ramghat	129	labor charge + other materials required	material worth NRs 1000-1500	-
2	Kalyan	23	labor charge + other materials required	material worth NRs 1500	13000
3	Mehelkuna	168	labor charge + other materials required	Pan + pipe	cement
4	Sahare	210	labor charge + other materials required + NRs 200	Cement + pan worth NRs 1000-1500	pipe
5	Kaprichaur	18	NRs. 45 + labor cost	Pan + pipe + half pack cement worth NRS 1700	-
6	BNM-1	72	labor charge + other materials required	Pan + pipe	cement
7	BNM-2	139	labor charge + other materials required	Pan + pipe	cement
8	BNM-3	114	labor charge + other materials required	Pan + pipe	cement
	Total	873			

Sub-Activity vi Construction of Public Toilet (target: 5, achieved: 5 with extra 1 rehabilitated)

Altogether 5 new public toilets, one in each VDC, have been constructed and one public toilet at Sahare was rehabilitated. For the details, refer Annex XXI. For the operation and management of the public toilet, the bazaar management committee and the respective VDCs have been taking the lead. The construction have been successfully conducted with the mutual contribution from the project (80%) and the remaining by VDC office, bazaar management committee (BMC) and the community.



Public toilet construction at Mehelkuna VDC: Before and after new/re-construction (left to right)



Public toilet construction at Ramghat, Sahare and Kaprichaur (from left to right)

All public toilets have been well operated and managed by the BMC, except at Kaprichaur due to the lack of water source and electricity for pumping. For any technical support, masons at each VDC were provided with hands-on training and refresher with required basic tools to be stationed at the VDC office.

In order to solve the challenge at Kaprichaur VDC, few options on tube-well construction and larger collection tanks were researched on. But due to the difficult landscape and huge boulders at the construction site, it could not be feasible and cost-effective. BMC of Kaprichaur is, however, committed on searching for the permanent assistant to look after the toilet and manually transport water.

Sub-Activity vii ODF Declaration

vii) a ODF Declaration of wards (target: 3 wards; achieved: 3 wards of BNM)

Wards 1, 2 and 11 of Birendranagar Municipality were declared ODF with the joint support of USAID, EAWAG, Dutch WASH Alliance, WASTE and SNV on 28th March 2014, 18th Dec 2013 and 2nd Sept 2013 respectively. The ODF declaration at these wards were organized jointly with the respective WWASHCC after the approval from the MWASHCC.



ODF declaration rally at W-11 (left); event at W-2 (center); and W-1 (right) where Chief Guest SDE Abed Hussain Miya Thakurai of RMSO reflecting the concern of achieving Total Sanitation of Birendranagar Municipality, Surkhet

vii)b ODF Declaration of VDC (target: 5 VDCs; Achieved: 6 VDCs)

Ward no. 3 of Kaprichaur VDC declared ODF on 7th April 2012 while wards 1, 2 and 3 of Kalyan VDCs were declared on 24th June 2012. In the case of Kaprichaur-3, WWASHCC monitored the toilet construction and its use. Before the project implementation, the wards did not have any toilets. They became the model wards for motivating ODF declaration at the VDC level.



Formal event celebrating ODF declaration of wards 1, 2 and 3 of Kalyan (Left) and ward 3 of Kaprichaur (right)

As a result, the entire project VDCs have been able to achieve the ODF target. Among the five VDCs, four were declared in 2013. The declaration dates of Sahare, Kaprichaur, Kalyan, Mehelkuna and Ramghat were 27th Dec 2012, 23rd April 2013, 8th May 2013, 21st June and 24th June 2013 respectively. During the celebration events, representatives from DDC, VDC, RMSO, USAID, ENPHO, SNV, HELVETAS, other NGOs/ INGOs, local organizations, institutions, political parties and reporters participated and congratulated the VDC. All the representatives suggested the local participants on achieving total sanitation and proper use of toilets.



Ms. Linda Kentro at Kaprichaur ODF, LDO facilitating VDC Secretary of Kalyan, SDE facilitating VDC Secretary of Mehelkuna

Apart from the project intervention areas, the staff of Su-Swastha project also supported on the mobilizing youths for latrine promotion, facilitating VWASHCC of Maintada VDC for DWASHCC monitoring and the ODF celebration as per the request from DWASHCC and Maintada VWASHCC. The event was celebrated on 30th Oct 2013 where more than 200 local people participated.

The updated data shared by the Executive Officer of Maintada VDC showed that among the total of 2520 households, 2342 were permanent, 104 were shared and 74 temporary. The ODF has benefited 37,986 local individuals among which 26.1% were male, 27.3% were female and 46.5% children.



Maintada ODF declaration: VWASHCC felicitated

vii) c Post ODF workshop (target 5; achieved 5)

With the extension of the project, post ODF workshops were planned to finalize the post-ODF strategies prepared by each VDCs after the ODF declaration. Refer Annex XXXIII for the workshop records where VWASHCC members actively participated on finalizing their strategy and commitment on total sanitation achievement. Refer Annex XXVIII for the consolidated plan.

Sub-Activity viii Exposure Visit (target: 5, Achieved: 5)

A) Achham Visit

Altogether 28 participants visited Achham from December 6 to 8, 2011 representing VDC secretary, VWASHCC member, RMSO representative and Su-SWASTHA project staff. Refer Annex XVIII for the summary report. The main objectives of the visit were as follows:

- To know the overall procedure of sanitation movement of Achham implemented by Sebac Nepal and replicate the same process in project VDCs at Surkhet,

- To build the capacity of participants on social mobilization for promotion of sanitation facilities,
- To interact with local people to know about their initiation, effort, challenges and lesson learnt to declare their VDCs as ODF.

B) Child club exchange visit

Child Club members of Laliguras NMV, Ramghat-8 were taken to visit Chandrodaya NMV, Ramghat-2 on 16th Jan 2013. Altogether 31 child club members were involved in the visit.

The child club members of Chandrodaya NMV shared their experiences of sanitation promotion within and around the school catchment area. They briefed about their time table on their involvement on sanitation movement. They said that they visited each household in the school catchment area with their team teacher to motivate and request their parents, relatives and neighbors to construct permanent toilets. Those parents who did not construct toilets were invited in the school and provided with sanitation materials like soap and toilet cleaner, and made them commit in front of all the students and teachers on constructing toilets.

After the briefing, the child club members of Laliguras NMV shared their effort and challenges. One of the major challenges was the difficulty in motivating people on constructing toilets. After learning the experience of other schools and child club, they were inspired with the idea of child club, teachers and school working together at the same time for sanitation promotion. As per the commitment during their visit, the child club members together with the teachers and school pressurized the community of school catchment area. This has finally supported on motivating Ramghat-8 for constructing and upgrading their latrines.



Interaction with the local people during Achham visit (left); Gularia visit (center) and Bharatpur visit (right)

Child Club exchange visit program: Child Club of Jana Kalyan MV, Kaprichaur were taken to visit 18 HHs of Kaprichaur-9 which is the catchment area of Jana Aastha PV. This exchange visit program was conducted to share the experiences of child clubs on community mobilization and interact on finding solutions for building permanent toilets. The child club of Jana Kalyan MV suggested on regular monitoring and awareness campaigns to be conducted by Jana Aastha PV and create pressure in these 18 HHs with no toilets.

C) Gularia Visit

The selected 30 members of 10 SWASTHA community promotion team and 5 CMs were taken to visit the SWASTHA clusters of Surajpur, Kothiya and Dipendranagar of Gularia, Bardiya from 1st-3rd October 2012 to observe the practices of the five SWASTHA components that have been successfully implemented since 2010. At the end of the visit, the participants prepared an action plan to declare their respective community as SWASTHA Community.

D) Bharatpur Visit

Exposure visit to the project staff was conducted from 2nd-4th Aug 2013 at Bharatpur Municipality and Jagatpur VDC for planning project exit strategy and learn the experiences of the SWASHTHA clusters at Bharatpur Municipality and post-ODF activities conducted by Jagatpur VDC to achieve total sanitation target. Refer Annex XXX for the exit strategy of Su-Swastha project prepared during the visit. By the reporting period of 2014, all the activities planned in the Exit Strategy have been completed along with the financial closing.

E) Su-Swastha community visit

V-WASH-CC member of Maintada VDC were taken to Nangi Su-Swastha community of Mehelkuna VDC and Labana Su-Swastha community of Kalyan VDC on 24th May 2013. The event was organized to make the VWASHCC members of Maintada VDC understand on different interventions regarding WASH promotion; efforts on the achievement through interactions, roles of FCHVs and schools to increase awareness and to share experiences on sanitation promotion. Altogether 42 members including V-WASH-CC members, FCHVs and teachers and students participated on the program. Out of them 17 were male, 23 female and 2 children. During the visit, participants committed to declare their VDC as an ODF zone.

Activity 1.2.3 Organize Training and Field Visit on ECOSAN to Local Leaders and Farmers (target: 5 trainings; achieved: 6 trainings and one refresher)

Sub-Activity i Identify local leaders and farmers interested to construct ECOSAN toilets

Sub-Activity ii Coordinate with RMSO, DAO, Surkhet and VWASHCC

Sub-Activity iii Organize training and exposure visits to local leaders and farmers

Under Activity 1.2.3 Sub Activities i, ii and iii, six events of one day training on ecological sanitation to local farmers and masons were carried out at each project VDC and municipality along with the refresher at the end of the project. Table 13 below shows the place and dates of the training.



One day orientation training for the participants from Ramghat VDC at Jahare (left), orientation on urine application (center) and refresher training at Birendranagar (right)

The objective of the training was to disseminate information about new technology of ecological sanitation and capacitate them on ECOSAN construction. The orientations at the VDCs were facilitated by Mr. Kashikant Thakur, training officer of ENPHO while that in the municipality was facilitated by DDC, ENPHO, NEWAH, RVWRMP and FINIDA. The training highlighted the importance of organic production, scarcity of chemical fertilizer, utilization of human excreta as fertilizer and procedure of urine application. In the case of Birendranagar, masons were trained not only on ECOSAN construction but also on pit latrines, sulav toilets and easy pans.

During the training, 3 ECOSAN toilets were constructed in Ramghat-7 with the technical facilitation from Mr. Bijaya Thapa of ENPHO. While that in the case of Birendranagar Municipality, 1 ECOSAN, 1 portable pan set pit latrine and 2 Sulav toilets were constructed in ward-1 with the facilitation from the external consultant of FINIDA. Similarly, during the refresher training, 2 ECOSAN (one dry and one wet) at Latikoili VDC and a demonstration site at Birendranagar Municipality Office were installed by the trainee masons.

Table 13: Ecological Sanitation Training

S.N	Date	Project area	Venue	Participants		
				Male	Female	Total
1	14 th March 2012	Ramghat	Shikhar Sahakari	9	0	9
2	15 th March 2012	Kalyan	VDC Hall	9	14	23
3	16 th March 2012	Mehelkuna	Health Post	17	9	26
4	18 th March 2012	Sahare	Ward no 5	4	18	22
5	20 th March 2012	Kaprichaur	Health post	18	14	32
6	26 th September-2 nd Oct 2012	Birendranagar	Fulbari Hotel	23	2	25
7	2 nd -6 th Dec 2013	Birendranagar	Fulbari Hotel	12	0	12
Total				92	57	149

Activity 1.2.4 Establish Demonstration Plot for Urine Application

Sub-Activity i Identify area for demonstration plot

Sub-Activity ii Establish demonstration plot

Sub-Activity iii Provide hands-on training on urine application to local farmers

The area for the urine application demonstration plot has been identified at Ramghat-7. Mr. Namraj Bhandari and Mr. Bir Bdr Bhandari of Rolpali Tole have established the demonstration plot. The preliminary hands-on training on urine application has been provided during the establishment of the plot on 18th March 2012. The second refreshment training has been provided on 12th August 2012 and the plot has been ready for demonstration.

Since the urine production is not enough for the entire farm, Mr. Bhandari has applied urine on potato and tomato farming in one small section of the farm (40 by 22 sq. ft.) as an experiment at the beginning. Now, they have been applying urine in the entire farm on onions and chilies. They have mixed one part urine and three parts water. The farmers have shared that the products with urine have improved in size and have better taste.



ECOSAN demo at BNM office

A demonstration site has also been established at Birendranagar Municipality office in December 2013 to increase awareness on ECOSAN. During the refresher training, two ECOSAN were constructed at the households of two farmers of Latikoili VDC. The farmers have also started conducting experiment on the urine application in Jan 2014. By the end of the reporting period, the experiment has shown that the cabbage with urine and compost is larger than urine alone than without using any urine and compost.



Urine Application at Ramghat (left) and experiment conducted by the farmers of Latikoili on cabbage with and without urine (right)

Activity 1.2.5 Support the Establishment of Urine Diverting or Biogas Attached Toilets (target: 10; achieved: 33 HH level and 2 institutional level)

Sub-Activity i Finalize list of households

Sub-Activity ii Conduct feasibility for construction of urine diverting and biogas attached toilets

Sub-Activity iii Design and cost estimation of toilet

Sub-Activity iv Construct urine diverting and biogas attached toilets

Hardware training of Ecological sanitation to local masons was organized at Ramghat VDC from 14th-18th March 2012 and at Birendranagar from 26th Sept-1st Oct in order to capacitate the interested local masons from the project areas on constructing eco-san toilet. Altogether 9 local masons from all project VDCs and 25 from the municipality participated on the program. They constructed three eco-san toilets in Ramghat-7 and 1 at Birendranagar-1 during the training period. At the end of the project 12 interested masons were provided with refresher training on ECOSAN from 2nd-6th Dec 2013.



Construction of ECOSAN toilets during the refresher training for masons at Birendranagar in Dec 2013.

Even after the training, 23 Wet-ECOSAN and 4 urine diverting biogas attached toilets were constructed at Ramghat; 1 Wet-ECOSAN at Mehelkuna and 1 at Sahare. Apart from that, 233 Bio-gas toilets at Ramghat and 15 at Mehelkuna have been promoted. After linking the financial loan system with KP Byawasahi of Birendranagar, 6

HHs of ward-1, 21 of ward-2 and 57 of ward-11 of the municipality constructed the biogas toilets. The data has been entered in Annex XXI.

Apart from the HH level promotion on sustainable sanitation, 2 schools within the project VDCs interested on urine application were installed with urine collection tanks. Nepal Rastriya HSS of Badakholi, Mehelkuna-7 and Jana Sewa NMV of Sahare-4 have constructed gender friendly urinal for urine application research, drip irrigation, JTA study and making their schools as model demonstration sites. It has been reported that Principal Dhal Bhr Khatri of Nepal Rastriya HSS have been providing extensive training on urine application for 48 JTA students while Principle Bum K.C of Jana Sewa NMV has been enhancing the vegetable plotting through urine application.

Activity 1.2.6 Prepare and Implement WSP for Five Water Supply Schemes (target: 5; achieved: 6)

Sub-Activity i Formation of team for WSP implementation

Formation and reactivation of the WSP team from within the water users' group were formed at five project VDCs from August-Sept 2012.

Sub-Activity ii Identification of the existing water supply schemes

Six water supply schemes were identified within the project VDCs by the VWASHCC members for WSP implementation.

Sub-Activity iii Assess existing water supply system

Entire existing water supply schemes, 17 altogether, were visited and assessed within the project VDCs. The assessment was based on types of water sources, supply system including treatment, scheme management system, and economic condition of water provider, quality of water and consumer satisfaction. After the assessment, VWASHCC members identified six water supply schemes for WSP implementation.

Sub-Activity iv Organize training on WSP and prepare water quality improvement plan (target: 5; achieved: 3)

One day orientation on Water Safety Plan (WSP) was carried out for water users' group of Ramghat and Kalyan on 6th July 2012 at Shikhar SACOS hall in order to analyze the existing water supply system, risks of water contamination and awareness on the eradication of water-borne diseases. Similarly, two days' WSP training for four water schemes of Ramghat-7 were carried out with detail plans and tentative cost for water source protection on 9th-10th Oct 2012. The training was conducted for the water users' group (WUG) and 'Su-SWASTHA Community Promotion Committee' of Ramghat-7 where the responsibility of the leadership on rehabilitation and overall implementation with proper management of the plan was given to the Su-SWASTHA Community Promotion Committee.



WSP training at Machhapuchhre Hotel, Chhinchu

Two days' training on Water Safety Plan (WSP) was carried out for water users' group of Ramghat, Kalyan, Sahare and Kaprichaur. The event was held at Machhapuchhre Hotel, Chhinchu from 26th-27th May 2013. The overall objective was to analyze the existing water supply system, risks of water contamination and awareness on the eradication of water-borne diseases through source protection and rehabilitation. At the end of the training they

were briefed on establishing maintenance fund through community for sustainable water improvement. Refer Annex XXXI for the proceeding of the training. Table 14 below shows the details of the WSP trainings conducted.

Though it was planned to conduct 5 WSP trainings, one in each VDC, only 3 has been organized. It was suggested by the users' committee to conduct trainings with participants from other VDCs to share and experience their learning. Hence all the responsible people from the users' committee within the selected WSP were brought together. It was found that three trainings were sufficient on planning and finalizing the WSP implementation. This made the trainings effective as well as saved both time and resource.

Table 14: WSP training

S.N	Water Safety Plan Capacity dev.	Target WUG/ VDC	Date organized	Beneficiaries		
				Male	Female	Total
1	WSP orientation	Ramghat and Kalyan	6 th July 2012	3	9	12
2	WSP training	Bhandari Tole Pani Kuwa, Gyiene Khola, Kareli Khola and Pravu Naula of Ramghat-7	9 th -10 th Oct 2012	8	22	30
3	WSP training	Ramghat (Bhandari Tole, Gyiene Khola), Kalyan, Dapcha- Sahare, Kaprichaur-5 and Kaprichaur-6	26 th -27 th May 2013	13	17	30
Total				24	48	72

Sub-Activity v Design and cost estimation

Design and cost estimation were conducted by Technical engineer (consultant) and project overseers after revising the proposed estimation by the users' committee during the WSP training.

Sub-Activity vi Implement water quality improvement activities (target: 5; achieved: 6)

After detail design and estimation, altogether six water quality improvements have been completed at Ramghat (2), Kalyan (1), Sahare (1) and Kaprichaur (2). Table 15 below shows the description on each WSP implementation. It has been found that the implemented WSP's were well operated and managed by the Water Users' Committee till the completion of this report. For the technical support, masons within each VDCs were provided with plumber training, WSP training and refreshers. One of the WSP implementations conducted at Bhandari Naulo of Ramghat is presented in the picture below.

Water quality improvement area	Before	After
Bhandari Naulo Ramghat		

Table 15: Description on WSP implementation.

SN	VDC	Ward No	Estimated Beneficiary	WSP source	Description of Job
1	Ramghat	7	370	Gyiene khola	HDEP pipe lay out and water collection tank.
2	Ramghat	7		Bhandari naulo	Intake constructed and HDEP pipe layout and hand pump fitting.
3	Sahare	6 & 9	150	Dapcha	Intake rehab, collection chamber & 32 mm HDEP pipe layout.
4	Kalyan	7	79	Chhitali	5*4 size collection chamber construction along with tap stand and platform construction.
5	Kaprichaur	6	265	Rata khola	2500 m pipe lay out and stand post construction.
6	Kaprichaur	7	237	Goji Bazaar Khola	Intake construction.

Activity 1.2.7 Prepare and Implement WASH Rehabilitation in 5 HPs (target: 5; achieved: 3)

Sub-Activity i Design and cost estimation

Sub-Activity ii WASH rehabilitation as required

After the observation and general need assessment at 4 sub-HPs and Mehelkuna hospital, Sub-Health Posts (SHP) of Sahare, Kalyan and Kaprichaur showed rehabilitation needs for WASH improvement. New bathroom for pre- and post-natal mothers was constructed at Kalyan Sub-Health Post (SHP) while water supply through tank and intake was completed at Kaprichaur and Sahare SHP by May 2013. The VDC office of each VDC contributed for the construction purpose. For the details, refer Annex XXI.



Water tank at Kaprichaur Sub-health post

Activity 1.2.8 Support Schools in Declaring their Catchment Areas as SWASTHA Zones

Sub-Activity i Construction of household toilets

During each orientation and household visit for constructing toilet, people were informed about the sludge management and formation of new pit after one gets filled up. Masons were trained on the aspects of operation and maintenance of one pit latrine, two pit latrine, easy pan and ECOSAN toilets. Refer Annex XXXII and XXXIII for the series of activities conducted by the project in collaboration with various stakeholder for WASH and household toilet promotion.

Sub-Activity ii Establish and strengthen HWTS supply chain at school catchment areas

Refer Sub IR 1.1 for the process of HWTS supply chain. The project has established 6 WASH marts for the promotion and strengthening of HWTS supply chain and sanitation promotion at the school catchment areas. Refer Annex XVII, XVIII, XIX and XX for the guidelines, trainings, assessment and WASH-Marts lists for strengthening the supply chain.

Sub-Activity iii Erection of hoarding boards

Altogether Five hoarding board were placed at the project VDCs showing five major components for “SWASTHA Community” for raising awareness and another five hoarding boards focusing on ODF campaign. The boards were placed at the market areas of VDCs where the mobility of people was high. Refer Table 16 for the specific areas of the VDCs where the boards were placed.



Hoarding boards on SWASTHA campaign and ODF campaign

Apart from hoarding boards, flexes were placed at SWASTHA communities where information on integrated WASH approach with pictures of community people involved in making change were presented. They have been placed at Ramghat-7, schools of Sahare-7 and Sahare-2. While placing the flex at Sahare, more than 285 children and community people were present to learn about the SWASTHA components.

Table 16: Placement of hoarding boards

S.N	VDC/ municipality	SWASTHA campaign boards	ODF campaign boards
1	Ramghat	Hatiya Bazaar	Hatiya Bazaar
2	Kalyan	Near VDC office	Near the health post office
3	Mehelkuna	Pabitra Bazaar	Near police station
4	Sahare	Bhalukhola	Botechaur Bazaar
5	Kaprichaur	Kaprichaur Ma vi	Gozi Bazaar
6	Birendranagar		Bazaar areas of wards 1, 2, and 11

Similarly hoarding boards at Ramghat Water Supply Scheme on HWTS options and at Birendranagar Municipality Office on ECOSAN demonstration were also placed.

Sub-Activity v Health and hygiene campaigns

Regular health and hygiene campaigns were conducted through the project and with the support of FCHVs. Refer Annex XXXII for the orientations on health and hygiene conducted for local people and groups.

Sub-Activity vi Water quality demonstration

Water quality demonstration were conducted at water sources, schools and for FCHVs from March-June 2012 at project VDCs. Most of the schools and few shops of FCHVs took lead on demonstrating P/A vial tests.



Demonstration on Water quality testing at water sources

Sub-Activity vii Detail survey of selected SWASTHA community

Model communities for SWASTHA declaration were selected from the project VDCs with the decision from respective VWASHCC meetings. The Concept of sanitized **SWASTHA** community denotes **Safe Water, SanitaTion and Hygiene for All** in targeted community. In Nepali language, Swastha literally means “Healthy”, where every HH have safe and clean latrines, every HH use at least one POU option for HWT, every HH have the provision of safe management of waste, every HH have improved cooking stove and adopt healthy behavior on critical situation.



Household survey at the selected SWASTHA communities

Sub-Activity viii Compilation of survey report

The survey result of the selected communities were entered and analyzed. Refer Annex VII for the survey report.

Sub-Activity ix Swastha team formation

Altogether 6 SWASTHA community promotion teams were formed within August 2012. The teams were formed from 10 selected SWASTHA communities, viz. Bhandari Tole of Ramghat-7 for three clusters, Lamana of Kalyan-7 for four clusters, Bhalukhola of Sahare-7 for one cluster, Ratamata of Sahare-2 for one cluster, Nangi of Mehelkuna-5 for one cluster and Gojibazar of Kaprichaur-7 for one cluster. In 2013, Dapcha community of Sahare was self-initiated for Su-Swastha declaration and formed a Swastha team with the facilitation from the project.

SWASTHA community promotion team have been organizing regular meetings in order to interact and discuss on the progress and planning of integrated WASH promotion at their respective communities.

Learning Sharing: The participants of the exposure visit shared their learning and plan with the rest of the members of the team and community people.

Documentary Show: Documentary regarding WASH were shown on regular basis for the promotion of permanent latrines.

Participatory decision: Every decision is made in a participatory way, such as, participant selection for trainings, orientations etc.

Regular monitoring of HH: Regular HH visits within and around SWASTHA community were conducted for upgrading temporary toilets into permanent ones. The SWASTHA team of Ramghat has also formed Su-SWASTHA Promotion Sub-Committee to accelerate the progress on SWASTHA declaration.

Due to the initiation of the SWASTHA community promotion teams, the declarations have been possible within the project period. Annex XXXII shows the regular meetings and coordination among the SWASTHA team and with the community.

Sub-Activity xi Declare catchment area as SWASTHA zones (target: 10; achieved: 10)

With the initiation of the Su-Swastha Committee, schools and the community, nine communities selected by VWASHCC and one community of Dapcha, Sahare (self-initiated) have been declared Su-Swastha after achieving all the SWASTHA components. The marking for Su-Swastha declaration was done by the DWASH monitoring team. The detail data is presented in Annex XXI.



Celebration of Su-Swastha Declaration at Labana, Dapcha and Mehelkuna respectively (from left to right)

The Su-Swastha declaration events are the first events in the history of Surkhet District on achieving total sanitation (Swastha) target. All the events were conducted on the chairmanship of the chairperson of respective Su-Swastha community promotion committee. The representatives from DDC, RMSO, DWASHCC, VDC, NGOs, INGOs, local organizations and institutions, political parties, media, FCHVs, local clubs congratulated the clusters on achieving total sanitation targets and sanitized healthy lives. They requested the community on continuing this behavior and sharing their learning to the adjoining clusters. Altogether 1395 community people made the events grandeur, which is listed in Table 17 below.

Table 17: Su-Swastha Declaration Events

S.N.	Date	Su-Swastha Declared	VDC	No of participants			
				M	F	Children	Total
1	11th June 2013	Ratamata	Sahare	7	52	196	255
2	12th June	Bhalukhola	Sahare	27	38	157	222
3	13th June	Nangi	Mehelkuna	82	89	213	384
4	25th June	Gozibazaar	Kaprichaur	27	29	47	103
5	29 th Sept	Chhitali	Kalyan	100	150	0	250
6	29 th Sept	Thotri	Kalyan				
7	29 th Sept	Kachurghari	Kalyan				
8	29 th Sept	Labana	Kalyan				
9	4 th Dec	Dapcha	Sahare	30	19	40	89
10	5 th Dec	Rangmale	Ramghat	29	63	0	92
Total				302	440	653	1395

All the Su-Swastha committees have created fund through basket collection after filter distribution for operation and management in the future. In the case of Mehelkuna and Ratamata of Sahare, the committee used the collected fund for constructing ICS within the community; invest on constructing culvert at Nangi (Mehelkuna-5), bridge at Ratamata and traditional Shiva temple at Bhalukhola (Sahare). On the other hand, the committee of Kaprichaur and



Inauguration of Shiva Mandir constructed from the collected fund at Bhalukhola

Dapcha (Sahare) constructed dish-washing platform and hand-washing provision. Refer table 6 for the details.

With the growing need of waste management at the public places of Gozibazaar, the committee with the support of the project constructed two burning chambers. The practice of burning waste once in a week has been set in the community. This has been closely monitored by the committee members.



Filter use at Gozi bazaar; hand-washing provision and dish washing platform at Kalyan; waste incinerator at Gozi bazaar (from left to right)

EMMP plan for all the construction activities before and after intervention have been prepared and shared in Annex XXXIV.

6.1.3 Sub IR 1.3 – Enhanced Capacity of FCHVs and Users Committees to Deliver Hygiene Messages

Activity 1.3.1 Rapid Response and Hygiene Promotion (RRHP) Training for Youths

One day training on “Rapid Response and Hygiene Promotion” was conducted to 30 youths from project areas on July 6, 2011 at Jahare VDC. The main objectives of the training were to sensitize youth on WASH issues and prepare them for immediate emergency. Several topics such as importance, issues, prospects of hygiene promotion during emergencies and its related risks, behavior change communication in emergencies and youth as a change maker were highlighted. The presentation was followed by documentary entitled “Disaster, WASH and Youth”. At the end of the session RRHP Team was formed with 30 members to act on emergencies and they prepared a detail action plan. However, the team being the first at Surkhet struggled to adapt and follow the action plan at the initial stage. The youths were mobilized during the sanitation promotion.



Training on RRHP for youths

Activity 1.3.2 Design and Organize Training on BCC for Local Community Front Line Workers and Field Staff (target: 12; achieved: 12)

Sub-Activity i Coordinate with DPHO, Surkhet to collect baseline information about frontline workers

Sub-Activity ii Select frontline workers and field staff for BCC training

Sub-Activity iii Conduct 2 days BCC training

After the preparation of BCC strategy (Annex XXXV), BCC trainings were organized for frontline workers. Altogether 12 events were conducted among which five events were organized for FCHVs, two for staff and five for the Su-Swastha community promotion committees. Altogether 335 benefitted from the training. Refer Annex XXXIII for

the training records and Annex XXXVI for the proceeding of the training conducted for FCHVs while Annex XXXVII conducted for the staff.

The main focus of the training was on differentiating the behavior of the participants and overall local community people before and after receiving the knowledge and information regarding the SWASHTHA components through participatory voting approach. The results showed that the participants have relatively improved in knowing and adapting the healthy WASH behavior.



BCC training for Surkhet field staff

During the training sessions, the participants were informed about the hygiene indicators of Surkhet District prepared by DWASHCC for the Su-Swastha Community declaration. Refer Annex XXXVIII for the indicator list. In order to achieve those indicators, the participants were facilitated on various skills to influence their neighbors to adopt the expected behavior for Su-Swastha declaration. At the end of the session, they prepared work plan for achieving Su-Swastha community declaration.



Participants eager to learn during the BCC training conducted at the Su-Swastha Communities of Ramghat and Sahare VDC

Activity 1.3.3 Design and Organize Training on SLTS and WASH for School Management of 55 Schools (target: 6; achieved: 8)

Sub-Activity i Finalize training modules, guidelines, materials and training dates and venue

Sub-Activity ii Select and finalize list of participants

Sub-Activity iii Conduct 2 days' training to school teachers, SMC and PTA

Two to three days trainings on SLTS was provided to 213 school teachers, School Management Committee (SMC) and Parents Teachers Association (PTA) to enhance awareness on SLTS approach to key stakeholder on sanitation and enhance their knowledge on total sanitation campaign, promote user friendly WASH facilities at school and to declare school catchment area as SWASTHA community.



SLTS training conducted at Ramghat VDC for school teachers, SMC and PTA

They were introduced about the project implementation strategy of Su-SWASTHA project and were motivated to develop their schools as a model with WASH facilities. At the end of the session, they made a detail action plan focusing on WASH improvement activities at schools and approaches to mobilize child at community to declare their catchment areas as an ODF zone. Refer Annex XXXIII and Annex XXXIX for the training records and proceeding report respectively.

Activity 1.3.4 Organize Training on WASH to Local Stakeholders (target: 10; achieved: 17)

Sub-Activity i Consultation meeting with RMSO office, Surkhet

Sub-Activity ii Finalize training modules, guidelines, materials and training dates and venue

Sub-Activity iii Select and finalize list of participants

Sub-Activity iv Conduct 2 days' training to local stakeholders

One to Two days' WASH training to 821 local stakeholders, political leaders and local change agents was provided to enhance their knowledge on water, sanitation and hygiene; to disseminate information on sanitation movement at Surkhet and to get their commitment on implementation of sanitation program.

Among the 10 planned events, 17 were conducted as per the need assessment for effective WASH promotion. Refer Annex XXXIII for the training details.



WASH training for local stakeholders conducted at Birendranagar in coordination with RMSO

Activity 1.3.5 Organize training on Improved Cooking Stoves (ICS) (target: 0; achieved: 2)

The project organized two events on ICS training with close collaboration with local NGO Beautiful Nepal Association (BNA) at Koldanda, Uttarganga VDC from 1st-4th November 2012 and at Dapcha, Sahare on 24th August to promote Swastha community. The training was targeted to local community members and masons of SWASTHA community. The main objective of the training was to capacitate local masons and interested community members on constructing ICS and support on declaring SWASTHA community. Altogether 9 benefitted from the training, among which 4 were female.



Participants actively involved in making ICS during the training

During the training, the participants were also oriented on the health impacts of traditional cooking stoves and provided with skills to advocate various types of ICS. The participants were provided with ICS making tools and construction bases (keys).

Activity 1.3.6 Organize refresher trainings

Altogether 23 refresher trainings were conducted benefitting 678 change agents on BCC, WASH, team building for solid waste management, BSF installation, mobile data collection, latrine construction, hygiene and project management and planning. Table 18 shows the training list that supported on benefiting 22.1% male, 60.6% female and 17.3% children). Refer Annex XXXIII for the detail data. The trainings were conducted as per the need and demand from the frontline workers to accelerate total sanitation campaign and SWASTHA approach.

Table 18: Refresher trainings

S.N.	Training topic	Focused group	No. of trainings
1	BCC	FCHVs and Su-Swastha committee members	6
2	WASH	FCHVs, mothers' group, HMC, TLOs	7
3	Team building and waste management	Child club members, SMC	6
4	Latrine Construction	Masons	1
5	BSF installation	Project staff	1
6	Mobile data collection	Project staff	1
7	Project management and planning	Project staff	1
	Total		23

With the extension of the program, 5 events for O&M training were also planned for Jan-March 2014. However, seven events were conducted (one for WSP, 5 for schools, one for overall VDC technicians and one for water users' committee) to cover all the WASH interventions within the project areas. Altogether 135 technicians were trained among which 41.4% were female, 12.9% Dalit and 28.9% Janajati.



Refresher training for FCHVs, mothers' group and health management committee on sanitation, HWTS, IAP, waste management and personnel hygiene

Refer Annex XXXIII and Annex XL for the training records and O&M manual prepared and shared for Ramghat Community Water Supply Scheme.

6.1.4 Sub IR 1.4 – Improved Hygiene Behaviour in the Community

Activity 1.4.1 Develop Behavior Change Communication Strategy

Sub-Activity i Analyze need of BCC by reviewing result of baseline survey, KAP study and gender assessment

Sub-Activity ii Produce consolidated report on BCC strategy

Refer Annex XXXV for the consolidated report on BCC strategy.

Activity 1.4.2 Develop and Produce Appropriate Training and Communication Materials

Sub-Activity i Collect and review existing IEC materials on WATSAN

Sub-Activity ii Identify new IEC materials for development

Sub-Activity iii Draft IEC materials (design, layout and content) based on recommendations from BCC strategy

Sub-Activity iv Share and finalize the IEC materials

Sub-Activity v Printing of IEC materials

A range of IEC and promotional materials have been published and distributed in the community during various trainings, campaigns and workshops. These materials include:

- | | | |
|--------------------------|---------------------|-------------------|
| - Project Brochure | - Token of Love | - Banner |
| - IEC on PoU options | - Project bags | - Play cards |
| - IEC on toilet types | - Sanitation Appeal | - Flip charts |
| - IEC on Bio-sand filter | - Flex on WASH | - Hoarding boards |
| - Stickers for school | - Project Factsheet | - Case Study |

Refer Annex IX and XLI for the document on case study and project fact sheet respectively.

Activity 1.4.3 Prepare Action Plans for HWTS and SLTS Campaigns in all School Catchment Areas (target: 54; achieved: 58)

Since children are an effective change agent who could promote WASH messages at the household level, awareness program has been focused at school level.

Sub-Activity i Monthly coordination and meetings with SMC and local people

Sub-Activity ii Formation of child club

Sub-Activity iii Conduct training/ orientation to child clubs on Total Sanitation (TS) and HWTS

Sub-Activity iv Prepare detail action plan on TS campaigns

Sub-Activity v Annual revision of the detail action plan

Sub-Activity vi Mobilize child clubs to declare SWASTHA communities

In 2011, child clubs were formed and they were reformed each year with revised action plan in the schools of project VDCs and municipality. Altogether 167 orientation, trainings and meetings were conducted to mobilize child clubs within the project VDCs, benefiting 3274 students and 1370 (63% male and 37% female) teachers who actively participated and committed on motivating the community for upgrading toilets and achieving the components for Su-Swastha Declaration. Refer Annex XXXII for the list of meetings and orientations conducted to mobilize child clubs.

Among that, review meetings were organized at each VDC to share the WASH intervention status along with O&M mechanism. This platform has been one the strategies to make the schools present their hardware and financial investments, ODF & Su-Swastha status at their catchment area, provision of maintenance fund and use and operation of bio-sand filters. At the end of the meeting, it has been decided that the O&M fund will be deposited once the schools have the provision of the matching fund; which was completed by Dec 2013. Altogether 157 school teachers (128 male and 29 female) attended the meeting. The participants were provided with the BSF mechanism training on 10th Dec 2013 where 10% of the participating teachers and 57 school assistants participated



School WASH review meeting at Sahare (left) and Ramghat (right)

Members of SWASTHA community and school child club members of the project VDCs conducted household visits to motivate on constructing permanent toilets at their catchment areas and promoting SWASTHA components. Altogether 1393 child club members and teachers visited 2953 HHs. Refer Annex XXIX “Child-club visits” for the details.

Activity 1.4.4 Raise Awareness Levels on HWTS, Sanitation and Hygiene

Sub-Activity i Community mass meetings

Altogether 266 events on community mass meetings and focus group discussion have been conducted at the project VDCs in on various topics related to safe water, sanitation, hygiene and O&M. From these events, 8099 community people benefitted among that 40.5% were men, 57.3% were female and 2.3% children. The list of the events is pointed out in Annex XLII.



Community mass meetings and focus group discussion conducted at Ramghat, Kalyan and Sahare (from left to right)

The main objective of these meetings and discussions were to share knowledge on PoU options, sanitation, ICS, waste management, personal hygiene and attaining sustainability through bringing the issues on O&M. Not only community people, but also members of various groups such as child clubs, youth clubs, and women’s group, TLOs, mothers’ group, FCHVs, political leaders, WWASHCC, SWASTHA committees and VWASHCC got a common platform to interact on issues of integrated WASH and environmental friendly developmental options. One of the successes achieved from these series of community meetings was that Environment saving group of Kaprichaur created awareness at community about the need of toilet and advocate for low cost sanitation technology to those households who have not constructed their toilets yet. Similarly community groups selected the issues and reached up to higher government levels such as VDC, DDC and RMSO for their rights on water and sanitation. The voices were heard due to which the government supported and contributed on WASH interventions conducted at sub-health posts and public toilet which could be visualized in Annex XXI.

Sub-Activity ii Social mapping

Social mapping has been conducted at the entire project VDCs reflecting the sanitation coverage and presented it on the hoarding board during the occasion of ODF declaration at each VDC. Similarly, social mapping on SWASTHA components have been presented on a flex at all 10 Su-Swastha communities during the declaration events. The main objective of the social map was to involve the community on visualizing the changes that has been brought after project intervention.



Sanitation map promoted at each intervention area (left) and sanitation mapping at Su-Swastha community of Sahare

Sub-Activity iii Distribution of Sanitation Cards

One day orientation was carried out on the benefit, use and distribution of sanitation card to the local enumerators. The main objectives of the sanitation card were to speed up the sanitation campaign and toilet construction in the VDCs and municipality and to collect the information regarding sanitation facilities of each household for future reference.

Altogether 101 enumerators were mobilized for updating the sanitation card. The detail is shown in Table 19 below. Sanitation cards were distributed by VDCs since April 2012 and at Municipality since August 2012.

Table 19: Orientation on Sanitation Card

S.N	Project areas	Date	Mobilized by	Mobilized to	Participants		
					Male	Female	Total
1	Ramghat	4 th March, 12	ENPHO	Enumerators	12	24	36
2	Kalyan	March 2012	ENPHO, EDS	CM	0	2	2
3	Mehelkuna	13 th March, 12	VDC	Enumerators	12	9	21
4	Sahare	23 rd March, 12	VDC	Enumerators	15	11	26
5	Kaprichaur	16 th March, 12	VDC	Enumerators	6	3	9
6	Birendranagar	July 2012	Municipality	CM and municipal staff	4	3	7
Total					49	52	101

Almost all the households with permanent toilets have been provided with sanitation cards. They were also briefed about its importance during the distribution process by the VDC office. The VDC office is taking the lead on distributing the sanitation cards while the wards are taking the responsibility on distribution at the municipality after the recommendation from the municipality office.



Orientation on Sanitation Card at Sahare (left) and Sanitation Card Distribution at Ramghat (right)

Sub-Activity iv Orientation to local people and groups

Community mobilizers (CMs) who were trained on safe drinking water, health, sanitation and hygiene have further disseminated message to 2337 community people, particularly household owners, FCHVs, sanitation pressure groups, VWASH monitoring team and volunteers in 2013 for meeting ODF targets where almost 60% of the participants were female.



Orientation to monitoring team at Mehelkuna

One day orientation on the construction of toilets, their use and importance of sanitation along with youth volunteer mobilization was done at Ramghat and Kalyan VDCs. The youth volunteers (12 male and 4 female) acted as pressure group and constructed 8 toilets at Kalyan and 2 at Ramghat in 2013.

On the other hand, sanitation pressure group of Kalyan VDC (12 male and 4 female) organized sanitation program at Syaublicazaar, particularly focusing on waste management and ODF declaration. After the ODF declaration, events were organized on PoU promotion for FCHVs of Kaprichaur, filter promotion for political leaders of Sahare; orientation on safe water and sanitation along with demonstration on source protection at Sahare. The list of the community orientations and events conducted is shown in Annex XXXII.

Sub-Activity v Focal group discussion (FGD)

An interaction meeting was conducted with 239 people of ward. no 3, 6, 7, 8, 9 of Mehelkuna VDC from 4-11th August 2011 in order to discuss about the possible routes on how feces could enter our mouth and precaution methods of diarrheal diseases. They were made aware on critical times of hand-washing, household water treatment methods such as boiling, chlorination, filter, SODIS and importance of constructing and using toilets. During these meetings, voice of the participants was tapped and their involvement was typically focused. FGD on the use of filters and other PoU options was conducted on 23rd Jan 2012 at Sahare, 10th Feb at Nangi, 26th March 2012 at Labana, Kalyan-7 and 23-24th April at Ramghat and Kaprichaur. The main objective of the FGD was to discuss about the pros and cons of filters, proper operation, handling, cleaning and management. Fitting the filters was demonstrated during the event. They were also distributed with the filter, where each household contributed NRs 300 per filter. The amount was collected by the committee to create basket fund for social and WASH related activities. Altogether 343 people benefited (165 male and 178 female) from the events.



FGD, PoU orientation and filter distribution at Kalyan

Similarly discussion on waste management was conducted among the market management committee of Sahare VDC where 7 committee members elaborately discussed on the importance and need of the solid waste management training. Addressing their need, training on SWM was conducted with the support of VDC office on 24th Jan 2014. Refer Annex XLII for the details of the conducted events.

Sub-Activity vi Door-to-door visit to raise awareness

The monitoring team from VWASHCC and MWASHCC members conducted regular door to door visits to enhance awareness and for the promotion of sanitation facilities at household level. This campaign was named as "Charpi Nimto".

There has been positive impact of HH visits in all the project areas. It has drastically increased the speed of constructing toilets. Apart from that, people upgraded their toilets from temporary to either VIP or permanent ones.

Youths were massively mobilized in Sahare to meet the target of ODF declaration. Due to their active effort, Sahare became the first among the project areas on celebrating the ODF declaration. Sahare VDC provided refreshment cost for youth mobilization where the youths supported on building toilets for the helpless and passive households. In order to follow up, motivate and vigorously complete the construction process at Kalyan VDC, VWASHCC mobilized youth groups and 2 ward coordinators in each group, and named them as "Sanitation Pressure Group". The groups were formed in each ward and they were also informed to construct toilets at the households of single women, old people and helpless people. They were oriented on sanitation promotion through awareness on 18th Dec 2012.



Sanitation Force Team at Kalyan and youths monitoring and constructing latrines at Sahare

With the initiation of school child clubs and members of SWASTHA promotion committee, household visits were conducted to drive the school catchment areas on constructing permanent toilets. Child club of Jana Kalyan MV of Kaprichaur initiated on cleaning its surrounding and catchment area on 7th February 2013. They disseminated information on household and environment sanitation and influenced 12 households.

Similarly with the initiation of Kalyan and Mehelkuna VDC, VWASHCC members, child club members and FCHVs conducted regular monitoring and HH visit for upgrading the toilets and their proper use. The pressure groups of Ramghat, Kalyan and Kaprichaur have even supported on constructing toilets by involving on digging and framing the base of the toilets.

Altogether 2953 HH visits have been conducted jointly with VWASHCC, FCHVs and child club members; 13,964 HHs have been conducted through local stakeholders such as VWASHCC, FCHVs, local volunteers and Sanitation

Pressure Group; while 1485 HHs were visited by each Su-Swastha community promotion committee for incorporating SWASTHA components. Similarly, project staffs visited 11,369 HHs and institutions for data reviewing, cross-checking, monitoring, and follow-up and motivating the community. Refer Annex XXIX for the details of the HH visits.

Sub-Activity vii Documentary show

Altogether 909 people within the project VDCs were made aware on the importance of using toilets, sanitation promotion, PoU options, and RWH system, through documentary shows such as “Sugandhapur”, “Charpiko Bihey” and “Jalpari”. Among them, 274 were male, 340 were female while 295 school children. Refer Annex XLIII for the details.

Sub-Activity viii Street drama and awareness rally

Altogether 28 street dramas have been conducted in project areas, which benefitted 5965 individuals among which more than 44% were children. The details are pointed out in Annex XLIII Sheet 2 “Drama”.

With the initiation from the schools, sanitation awareness rallies have been. The events were joined by 2761 participants among whom 1901 were students. Refer Annex XLIII for the list. The main objective of the rally was to motivate the community people on upgrading their temporary latrines to permanent with the slogan “पक्की चर्पी बनाऔ बनाऔ, रोगबाट बचौ बचौ”.

Apart from that, all the schools have been initiated on bringing sanitation rally during the ODF and Su-Swastha Declaration events. The schools, mother groups and local clubs have shown their active involvement on making the rallies more effective by creating play-cards and slogans on better sanitation and hygiene behavior.



Drama conducted at the market area of Sahare (left) and Sanitation rally at Kaprichaur (right)

Sub-Activity ix Different competitions at school and community level

Various competitions and programs have been organized to celebrate special occasions within the project intervention areas to enhance awareness level of the students and public on WASH. Such competitions and programs on day celebrations are listed in Annex XLIII. All these programs were organized to aware students and community on integrated WASH. Winners in all the competitions and programs were awarded different prizes and token of love. Altogether 11,333 participated and benefitted from these events, among which 28.4% were male, 40.4% were female and 31.2% children.

Sub-Activity x Media Campaign (radio program)

Bheri FM and local newspapers were used since 2011 to disseminate the message on sanitation campaign to the local community to support ODF declaration. The messages were aired at least two times a day. The recorded messages on water and sanitation improvement have also been aired since June 2012 through Bheri FM. Apart from that Ujjyalo FM has been conducting WASH promotion through Nepal WASH Alliance (ENPHO being one of the partners), where weekly program on water and sanitation is conducted every Thursday at 8 AM. The message reached 74 districts in Nepal.

Sub-Activity xi Pamphlet Distribution and Letter Campaign

With the initiation of VWASHCC of Ramghat, pamphlets were distributed to the community people on upgrading temporary toilets to VIP or permanent toilet in August 2012. On the other hand, Kaprichaur VDC office initiated letter campaign on 10th Sept 2012 in order to speed up the sanitation campaign. During the campaign, all the households were requested to complete the construction process by October 2012.

Sub-Activity xii Display of banner and wall painting

Saraswoti PV, Kaprichaur with joint collaboration with Su-Swastha project displayed banners on requesting the community of the school catchment area to support on ODF declaration. The banners were placed outside the school compound and public places.

Similarly, banners with ODF information were placed at the market places of Ramghat, Kalyan, Mehelkuna and Kaprichaur. The main objective was disseminating messages of ODF dates and requesting the community people on using toilets for urination and defecation.

Wall painting delivering messages on integrated WASH and hand-washing were conducted at the public places of Su-Swastha community to disseminate information on SWASTHA components.

6.2 IR2: Enhanced Local Governance of WASH Sector

6.2.1 Sub IR 2.1 – Strengthened Capacity of Local Partners to Advocate for WASH Issue

In order to conduct the activities smoothly at VDC level and to build the ownership towards the project, it is very necessary to work with local group such as VWASHCC. ENPHO has initiated to form VWASHCC at each and every VDC. Altogether 5 VWASHCCs and 1 MWASHCC have been formed (Table 20) and local people have been made aware about the project activities. VWASHCC and MWASHCC members participated in various WASH trainings organized by the project which have been shared in IR 1.

Table 20: Formation of VWASHCC/ MWASHCC

VDCs/ municipality	Date of formation	Number of Members			Initiated by
		Male	Female	Total	
Ramghat	May 27, 2011	21	4	25	VDC/DDC/ENPHO
Kalyan	June 30, 2011	14	7	21	ENPHO
Mehelkuna	March 26, 2011	21	3	24	VDC
Sahare	March 29, 2011	11	4	15	VDC
Kaprichaur	September 7, 2011	21	4	25	ENPHO
MWASHCC	June 7, 2011	27	4	31	ENPHO

In order to speed up the promotion of sanitation campaign at the ward level and to declare the ward as ODF, ward level WASH coordination committee were formed in Ramghat, Sahare and Kaprichaur VDC. Altogether 9 WWASHCC were formed (Table 21).

Table 21: List of WWASHCC formed

S.N	Date	VDC	Venue	No. of Participants		
				Male	Female	Total
1	Sept 27, 2011	Ramghat	Ward no 7	12	31	43
2	Nov 17, 2011	Sahare	ward no 1	16	9	25
3	Nov 19, 2011	Sahare	ward no 2	38	6	44
4	Nov 20, 2011	Sahare	ward no 4	16	15	31
5	Nov 21, 2011	Sahare	ward no 5	21	5	26
6	Nov 22, 2011	Sahare	ward no 6	22	14	36
7	Nov 25, 2011	Sahare	ward no 9	34	7	41
8	Nov 28, 2011	Kaprichaur	Ward no 5 , Tamakada	14	6	20
9	Nov 29, 2011	Kaprichaur	Ward no 4, Gagada	11	9	20
TOTAL				184	102	293

Activity 2.1.1 Preparation of Participatory Plan of Action by VWASH and MWASH

Sub-Activity i Prepare three year project work plan

The plan basically focused on promotion of sanitation facilities at household, school as well as public areas in order to declare VDCs as an ODF Zones. In spite of this, VDCs have targeted to provide water facilities to all HHs by 2017. Different stakeholders at VDC levels actively participated on the workshop to prepare the strategic plan. Refer Annex XXV for the consolidated Participatory VWASH plan of all the VDCs and Annex XXVI for the Participatory MWASH plan.



VDC Secretary of Ramghat VDC presenting the VWASH plan

One day WASH promotion workshop was organized on 25th April 2013 at Shikhar SACOS Hall, Ramghat to revise the VWASH work plan of Ramghat VDC. The main objective of the workshop was to identify the challenges and encourage stakeholders on WASH promotion and ODF declaration. Altogether 42 participants (19 male and 23 female) were involved in the workshop. The workshop was facilitated by Er. Om Dutta Regmi of DDC and Mr. Kulmani Devkota of FEDWASUN. The workshop concluded with the preparation of joint action plan of local stakeholders, political leaders and VWASHCC members on upgrading temporary toilets to permanent. According to the plan, the target of upgrading the temporary toilets has been achieved as per the updated data of Dec 2013. It was found that the temporary toilets have reduced from 15% to 7.69% (Annex XXI).

Sub-Activity ii Collect information of local stakeholders working in WATSAN sector

During the preparation of Participatory VWASH (P-VWASH) Plan, stakeholder analysis on the WASH situation and existing behavior of community people and their priority were tapped. To address the situation, different institutions working at VDC level were divided in different sector as per intervention issues. These included political sector, education, line agencies, saving and credit cooperatives, child clubs, youth clubs, local CBOs, VDCs,

Health sector etc. Sector wise strategic plan on WASH has also been clarified in both P-VWASH plan and post ODF strategy plan.

Sub-Activity iii Preliminary interaction meeting at district/ VDC level

A coordination meeting was held with VDC secretariat, headmasters of 9 schools and representatives of School Management Committee (SMC) at Shikhar Higher Secondary School, Ramghat VDC on January 13, 2011. Altogether 15 people were informed about the project activities and key approaches of USAID program. The major problem faced by most of the schools was lack of water and its impact on sanitation.



Interaction meetings conducted at the project VDCs in 2011

In order to capacitate VWASH members on the issue of sanitation campaign and to declare VDC as an ODF zone, an orientation program was provided to the members of VWASHCC. Altogether 113 members were introduced on different triggering tools to ignite and inspire community to construct toilet. They have made a detail action plan in order to declare their VDC as ODF.

After the formation of Ward WASH coordination committee (W-WASHCC) at ward no.1, 2 and 3 of Ramghat VDC, altogether 57 members were oriented on WASH issues and different triggering tools to motivate people to construct toilet at local level from September 28-30, 2011. Refer Annex XLII for the list of orientations and meetings conducted by DWASHCC, MWASHCC, VWASHCC and WWASHCC.

Sub-Activity iv Prepare VDC level detail participatory plan of action

Sub-Activity v Final consolidated participatory plan of action – VWASH

The final consolidated P-VWASH plan is attached in Annex XXV while P-MWASH plan is in Annex XXVI.

Activity 2.1.2 Organize Training on WSP

Sub-Activity i Consultation meeting with related stakeholders

Sub-Activity ii Finalize list of participants

Sub-Activity iii Conduct trainings on WSP to related stakeholders

Refer Activity 1.2.6.

6.2.2 Sub IR 2.2 – Enhanced Coordination among Government Bodies, NGOs and Other Stakeholders in WASH Sector

Activity 2.2.1 Form an Advisory Committee at the District Level

Sub-Activity i Initial meeting with local advisory committee

One day coordination meeting was organized with 11 district WASH stakeholders and VDC secretaries on 28th November, 2011 at RMSO, Birendranagar. There were representatives from EDS, RMSO, Care Nepal, Dalit Mahila Sangh and project VDCs. The main objectives of the meeting were to share the progress and challenges of the project activities during implementation, minimize the duplication of the project at VDCs, distribution of sanitation card, finalization of exposure visit to Achham and to finalize the subsidy for toilet construction. Following were the activities decided during the meeting:



Initial meeting with the local advisory committee

- Minimum support should be provided to the poor and ultra-poor households after the recommendation of VWASHCC
- The total cost of printing sanitation card will be shared by the stakeholders and the card will be provided to the households to speed up the toilet construction activity
- The date of exposure visit to Achham was finalized on December 6-8, 2011 and the participants included VDC secretary, active VWASHCC member, project staff and RMSO officials

Sub-Activity ii Formation of advisory committee

Sub-Activity iii Formation of VWASHCC

Sub-Activity iv Prepare VWASH plan

Altogether 177 members of VWASHCC and related stakeholders came to a common platform in order to prepare the detail plan in the participatory way. All participants were made aware on the importance of detail WASH plan with clear roles and responsibilities of stakeholders and allocation of resources to achieve the goal of ODF. All stakeholders were identified and the detail activities of different sectors were made with clear time frame and responsibilities. The list of people involved in preparing the action plan is shown in Table 22.

Table 22: Participants attending for the preparation of WASH plan.

S.N.	VDCs	Date	Number of Participants		
			Male	Female	Total
1	Mehelkuna	December 3, 2011	22	10	32
2	Kalyan	December 16, 2011	27	27	54
3	Ramghat	December 21, 2011	23	5	28
4	Sahare	December 23, 2011	27	6	33
5	Kaprichaur	December 25, 2011	24	6	30
	TOTAL		123	54	177

Activity 2.2.2 Coordinate with RMSO, District Agriculture Office (DAO) and VWASHCC regarding the Promotion of ECOSAN to Enhance Nutrient Recycling and Food Security

Sub-Activity i Consultation meeting with RMSO, DAO and VWASHCC

Regular review meetings were organized with the members of VWASHCC at Ramghat, Mehelkuna, Sahare, Kaprichaur and Kalyan



Review meeting at VDC level

VDC in order to review the progress made by each and every VDC on sanitation movement. The list of meetings conducted is attached in Annex XLII.

Regional workshop on Productive Reuse was organized at Birendranagar Municipality to link the promotion of ECOSAN, bio-gas, waste and waste water management, nutrient recycling and food security. The event was conducted on 23rd-24th September 2012 with the facilitation from Su-Swastha team and joint cooperation among Su-Swastha project, RUF Foundation, Birendranagar Municipality, RMSO, DWASHCC and MWASHCC. The proceeding report has been submitted on Jan 2013 which has been shared in Annex XLIV.



Children visiting the stall and practicing hand-washing

In coordination with the RWASHCC and DWASHCC, ENPHO supported on placing various WASH related IEC materials during the Mid-Western Business and Trade Fair conducted from 13th-22nd Dec 2013 at Ghantaghar, Birendranagar Municipality. According to the data provided by the Trade Union, NRs. 3,00,00,000 has been collected from the entry tickets; proving the entrance of 6,00,000 visitors during the fair. The community mobilizers and volunteers of ENPHO who were stationed at the stall demonstrated the technique of hand-washing to almost 3000 visitors.

Sub-Activity ii Launching of Regional WASH RC

Resource Centre Network Nepal (WASH-RCNN) in coordination with Department of Water Supply and Sewerage (DWSS), The Netherlands Development Organization (SNV) Nepal, United Nations Children's Fund (UNICEF), World Health Organization (WHO), USAID, EAWAG and Environment and Public Health Organization (ENPHO) has established Regional Resource Center at Regional Monitoring and Supervision Office (RMSO), Surkhet. The main objective of the resource center was to capacitate and facilitate information sharing and access within WASH sector in the Western Region of Nepal to assist in reaching the target of water and sanitation to all by 2017.

Several demonstration models on WASH and different IEC materials were equipped in the resource center. In order to aware people of mid-western region about resource center, launching program was organized on February 4, 2011 where 60 people were present. The chief guest of the program was Mr. Gajendra Thakur, Director General of DWSS. Other representatives were from DoE, RMSO, district WASH stakeholders, SSP-Nepal police, journalists and divisional engineer of 15 districts.

The key activities conducted by RWASHCC-RC are pointed out below:

- Coordinate with DWASHCC for regular meeting and to discuss about the reporting system of different stakeholders on WASH activities, celebration of national sanitation week, monitoring of community by DWASHCC before declaration of ODF. It was decided that the reporting format, indicator and minimum criteria for monitoring will be developed by the resource centre.
- Participation in RWASHCC meeting organized on 27th May 2011 to discuss about the celebration of national sanitation week, regional workshop to be held at Nepalgunj and form editorial team for publication of bulletin. The overall responsibility of coordination, documentation, editing and publication of bulletin was given to resource centre.
- All the secretarial work of DWASHCC and RWASHCC operated by Resources centre. Regular updates of regional level data and dissemination of information to the stakeholders.
- Publication of quarterly magazine called "Sarsafai Sandhes".
- Data update of school WASH situation: Altogether data of 217 schools of Surkhet district is updated.
- Support to prepare DWASHCC fund management and operating guidelines.

Su-Swastha project appointed a staff from Feb 2011 to October 2012 for the initial management. The Regional RC was handed over to RMSO who has appointed an internal staff for its management. From the successful learning and achievement on regional level advocacy and coordination, Regional RC has also been established at RMSO of Western Development Region, Pokhara in mid-2012 with mutual collaboration between RMSO of Pokhara, UNICEF, WASH-RCNN, CAWST, ENPHO and RWSSP-WN. The RC at Pokhara was handed over to the RMSO in January 2013.

The strategy of developing regional level resource centers was to increase collaborative effort and support the national goal on WASH improvement through better coordination, sharing and advocacy. However, in order to implement the strategy, it is highly important to appoint a responsible focal person.

Activity 2.2.3 Coordinate with National Level Committees

Sub-Activity i Consultation meeting with district level WASH (DWASH) committee

District level launching

ENPHO in coordination with USAID and EAWAG organized district level launching program on April 5, 2011 at Pachakoshi Hotel, Birendranagar. The main objective of the program was to share the project information to district stakeholder for effective coordination and networking in order to support the government's plan for achieving total sanitation in Surkhet district by 2015. Altogether 38 people participated, including representatives from government office, I/NGOs, political leaders, Journalist, VDC secretariat and stakeholder of WASH sector. Refer Annex I for the proceeding.



District Launching Program

DWASH meeting

After the launching, first DWASHCC meeting was organized on November 22, 2011 at RMSO. Altogether 33 members of DWASHCC including journalists were present in the meeting. The main agenda of the meeting was to review the progress and challenges of all organizations in the fiscal year 2067/68 and plan for the next year. ENPHO shared the progress of USAID project at the field level and informed about the new projects at Birendranagar municipality and Maintada VDC.

Since Surkhet has a target to declare ODF by 2015, the action committee was formed which included the member of DDC, RMSO, SNV, NEWAH, ENPHO, FEDWASAN and journalists. The detail action plan was prepared by the committee. Altogether 20 VDCs were planned to declare ODF by 2012. It was concluded to follow the sanitation master plan by all organizations to support disable and ultra-poor people to construct toilet although each and every organization have own policy for subsidy.

Meeting of task force was carried out on 30th March 2012 in order to prepare D-WASH-CC fund management and operating guideline, to prepare pre ODF monitoring format, indicator of target group for reward and provide support to build toilet etc. The task force prepared draft paper on those action which were finalized, approved and endorsed. Refer Annex XLV for the final guideline.

Regular DWASHCC meeting were conducted at least once in a quarter. Altogether 15 DWASHCC meetings have been carried out for ODF monitoring visits, Su-Swastha monitoring visits, finalization of SWASTHA indicators, etc. while one RWASHCC meeting has been conducted on 11th Dec 2013 for the preparation of the WASH exhibition stall at the Mid-Western business and trade fair. Apart from those informal one-to-one meetings with the Senior

Divisional Engineer of RMSO, LDO and WASH experts of DDC are conducted on regular basis for combating issues raised at the community level.

The main objectives of the DWASHCC and RWASHCC meetings are to monitor and guide the VDCs and municipalities on achieving their target of social development. Meeting of task force was carried out on 30th March 2012 in order to prepare D-WASH-CC fund management and operating guideline, to prepare pre-ODF monitoring format, to prepare indicator of target group for reward and provide support to build toilet etc. The task force prepared draft paper on those action and have been approved in the D-WASH-CC meeting.

WASH Stakeholder Meeting

USAID in coordination with ENPHO and SEBAC Nepal organized WASH stakeholder meeting on the occasion of world water day on March 16, 2011 at NHEICC hall, Teku, Kathmandu. The overall facilitation was done by Ms. Sharda Pandey, Senior Public Health Administrator, Ministry of Health and Population. The major objective of the meeting was to share the details of ongoing WASH activities that are implemented in mid and far western region of Nepal by ENPHO and SEBAC in coordination with USAID. Ms. Rochelle Rainey, Environmental Health Advisor, USAID/ Global Health Bureau presented about Water, Sanitation and Hygiene Integrated approach at the global context. Several WASH issues and activities were also highlighted by UNICEF and Water Aid Nepal. The program was followed with discussion session where each and every stakeholder gave feedback and suggestions for further improvement of the program.

National strategy development of sanitation promotion activities

Su-Swastha project supported Nepal Junior Red-Cross society to organize two days' review program on "National Strategy Development of Sanitation Promotion Activities" at Latikoili VDC of Surkhet district on 15th-16th Feb 213. Altogether 225 participants participated from 75 districts (3 from each district).

ENPHO shared the working modality for sanitation promotion and ODF campaign during one of the sessions. During the session, focus area was particularly on sanitation promotion through project management committees, VWASHCC, MWASHCC, DWASHCC, and RWASHCC for urban, peri-urban and rural sectors of Nepal. On the other hand, Nepal Red-Cross Society shared the developed district chapter for promoting sanitation facilities at Surkhet.

Sub-Activity ii Monitoring by DWASHCC team

DWASHCC monitoring has been carried out to assess the sanitation situation at VDC level and total sanitation at Swastha community level. The monitoring team included the representatives of RMSO, DDC, Beautiful Nepal Association (BNA), SAC Nepal, FEDWASUN, relevant local NGOs and a team of journalists. The team visited different wards, schools and interacted with VWASHCC before the approval of ODF declaration.

First level and second level DWASHCC monitoring was carried from 8th Feb-17th June at Ramghat, Mehelkuna, Kalyan and Kaprichaur VDCs in order to assess the sanitation situation.

The team also visited the selected communities of Ramghat, Kalyan, Mehelkuna, Sahare and Kaprichaur for Su-Swastha declaration on 28th May, 22nd June 2013, 24th Sept and 2-3rd Dec 2013. The team observed the communities and institutions within the Su-Swastha intervention areas and marked each SWASTHA indicator according to their observation.

According to the DWASH analysis result; all the Swastha communities have achieved more than 85%. The indicators have clearly benchmarked that the community will automatically get disqualified for Su-Swastha Declaration if they fail on 100% sanitation and hygiene coverage. Refer Annex XXIX for the details of the DWASH monitoring visits. The team recommended that the households should properly manage cow-sheds, chimney improvement, tidiness of cooking stoves and storage of traditional grinders (*Silauta*) at safe place for the 100% achievement of SWASTHA.



DWASHCC monitoring for ODF at Mehelkuna VDC (left); Journalist interviewing physically challenged lady on toilet use at Kalyan (center); DWASHCC and VWASHCC interaction at Kaprichaur

Sub-Activity iii Monitoring by Social Welfare Council

After the completion of two-third of the project duration, representatives from Social Welfare Council (SWC) proposed to visit the project areas from 26th-29th January 2013. Refer Annex XLVI for the report submitted by the SWC. The major recommendations proposed by the monitoring team included adjustment on administrative cost, addressing water scarcity during WASH promotion and to increase coordination with relevant government organization, particularly RMSO, DDC, DEO, DPHO, VDC office and Birendranagar Municipality.

Activity 2.2.4 Organize Six Launching Workshops and a Dissemination Workshop

Sub-Activity i Inception workshop at VDC level (target: 5; achieved: 5)

ENPHO in close coordination with VDCs organized launching program at local level in all 5 VDCs. The main objective of the program was to disseminate the objectives, strategy and activities to all stakeholders at local level for their feedback and suggestions. Altogether 185 people participated, including members of VWASHCC (Table 23). The participants identified the urgent need of WASH promotion in their community; and the local people showed more concern about water supply schemes rather than drinking water treatment options due to scarcity of water. Refer Annex I for the proceeding.

Table 23: Launching program at project areas

S.N	Date	VDCs	Total participants		
			Male	Female	Total
1	July 14, 2011	Ramghat	18	12	30
2	August 30, 2011	Mehelkuna	30	17	47
3	September 1, 2011	Sahare	24	17	41
4	September 3, 2011	Kalyan	14	18	32
5	September 7, 2011	Kaprichaur	28	7	35
TOTAL			114	71	185

Sub-Activity ii Inception workshop at the municipality (target: 1; achieved: 1)

Launching workshop was organized at municipal level on 18th Dec 2012 at Birendranagar Municipality. The overall objective of the program was to inform the local government and other stakeholders about the project activities and raise common voice for ODF declaration. Altogether 48 people participated in the workshop from various organizations such as DDC, RMSO, Birendranagar Municipality and other relevant NGOs.

Sub-Activity iii Mid-term Dissemination Program

Mid-term review and progress dissemination program was organized on 4th July 2012 at ENPHO Office of Birendranagar on the chairmanship of Dr. Suman K. Shakya. During the event, planning for July-Dec 2012 under IR framework was shared and Mid-term monitoring report prepared by an external was presented. Refer Annex XLVII for the report.

Sub-Activity iii Final dissemination workshop

VDC level closing and dissemination workshop (target: 5; achieved 5)

Altogether five events were organized, one in each VDC, for closing, handover and dissemination of the project progress. All the WASH interventions were handed over to the respective committees and institutions. Altogether 130 individuals participated in five events. Refer Annex XLVIII for the consolidated report.

Regional level closing and dissemination workshop (target: 1; achieved: 1)

Final level regional dissemination workshop was carried at Birendranagar Municipality on the chairmanship of SDE Abid Hussain Miya Thakurai of RMSO on 28th March 2014. Altogether 47 representatives of key stakeholders and relevant organizations participated the workshop. Refer Annex XLIX for the report.

Activity 2.2.5 Strengthen the HWTS/ SODIS Resource Centre to Further Support the Institutionalization of HWTS in Nepal and Convince the Central Level Health Sector to Integrate HWTS Promotion into its Structure

With the promotion of SODIS, recycled PET-plastic bottles were being used in Nepal for the disinfection of microbiologically contaminated water. Many concerns were raised and circulated that the use of PET-plastic bottles were harmful for human health as it may leach carcinogenic chemicals. In this regard, Swiss Federal Institute for Aquatic Science and Technology (Eawag) conducted research on the chemical quality of SODIS water in reused PET-Bottles from Nepal, Honduras and Switzerland. The study confirmed that the plastic bottles release no harmful chemicals and the water is safe to drink, even after an extensive period.

In order to disseminate the research findings, ENPHO and EAWAG jointly organized a press conference at Indreni Complex on April 7, 2011. Ms. Regula Meierhofer of EAWAG presented on world-wide promotion of SODIS technology and the research findings on plasticizer effect. Her presentation concluded that reusing PET bottles for SODIS was safe with no health risks. Altogether 12 media personnel and journalists actively participated during the workshop and the news on research findings were published in various national newspapers. It has helped to convey messages on benefits of using SODIS among general public. Similar sharing was conducted through regional resource center at Surkhet for the promotion of SODIS in May 2012, where 24 stakeholders



Research findings on the use of PET-plastic bottles for SODIS shared by Ms. Regula Meierhofer

participated.

ENPHO supported the resource center (RC) for various models demonstrating ECOSAN, Biogas and HWTS; along with the support on the publication of sanitation newsletter called “Sarsafai Sandesh” from May-October 2012 to share WASH related information and documentation of best practices, case studies, progress and learning of sanitation campaign in Mid-Western Region. The RC has been handed over to RMSO in October 2012.

Activity 2.2.6: Interaction program on SODIS with education department

ENPHO in coordination with Eawag organized interaction program on SODIS with different sectors of education department on April 8, 2011 at Indreni Complex. The main objective of the program was to share the world wide promotion of SODIS and partnership approach adopted by ENPHO in promoting household drinking water treatment options. In a total 14 representative from Education training center, Curriculum development center, Department of Education, Non-formal education, Science Environment and Technology Society Nepal (SETS) and Science Teachers Association Nepal (STAN) participated and discussed on how to incorporate SODIS in the existing curriculum. Some participants shared their experiences on SODIS promotion such as integration of SODIS in school curriculum, SODIS training to students of secondary level and project assignment on SODIS to students. They have recommended organizing SODIS workshop to teachers, demonstrating SODIS at schools, introduce SODIS at all levels of teachers’ training (TT) and teachers’ professional development (TPD) and include detail information of SODIS in compulsory subject of students, teachers’ guideline and non-formal education.



Participants from Education department engaged on preparing plan of action for incorporating SODIS in curriculum

6.3 Other Activities

6.3.1 Regular Project Meetings

Sub-Activity i Monthly project meetings at field level

Regular monthly meeting was organized among the field coordinators, technicians and community mobilizers of the project in order to share the monthly progress and planning. Challenges faced during the implementation were shared within the staff and solutions were recommended on achieving the project outputs.

Sub-Activity ii Monthly project meeting with USAID

Meeting with USAID was conducted once in a month or once in two months, where program and financial progress and issues were discussed.

Sub-Activity iii Semi-Annual Meetings at Central Level



Staff involved on progress sharing during staff meeting on 25th Dec 2013

The field coordinators were invited at Central Office twice a year for sharing the progress and challenges. During these meetings, solutions were discussed and plans were revised as per the need basis and it was targeted to complete all the required activities of the project by Dec 2013. The activities which could not be addressed by Dec were planned for the extension of Jan-March 2014, which were completed as planned.

6.3.2 Regular Monitoring and Supervision

Sub-Activity i Conducted in coordination with local stakeholders

ENPHO, in coordination with various local stakeholders such as VWASHCC, WWASHCC, Mothers' Group, Youth Club, SHP and Women's Group, conducted monitoring visits, supervision and orientations. Sanitary conditions of every household within the project areas were visited and people were made aware about the importance of permanent toilets, use of safe water, WSP, healthy behavior and behavior change. Refer Annex XXIX for the list of HHs monitored through such coordination and Annex XXXII for coordination meetings and orientations conducted.

Sub-Activity ii Conducted by ENPHO

ENPHO conducts monitoring and supervision of all the project areas regularly, on a quarterly basis. However, if quick supervision is required, technical and managerial assistance is provided all the time. Technical staff, field coordinators and community mobilizers conduct regular follow up on the progress updates. Refer Annex XXIX for the total households visited by the staff.

After assessing the progress in the field during each monitoring and supervision, progress of previous quarter and planning for next quarter are prepared and shared.

Sub-Activity iii Conducted with supporting agencies

Representatives from USAID conducted monitoring visits on a quarterly basis while that from EAWAG on an annual basis to observe the progress and to provide suggestions for future improvements.

Apart from the monitoring visits, the representatives attended the ODF declaration event at Kaprichaur VDC on 23rd April 2013.



Ms. Pragma Shrestha observing the Chang and Juthelno at Kaprichaur VDC

6.3.3 Activities Self-Initiated by Schools and Communities

Sub-Activity i Day celebration

Total 63 events were organized to celebrate various international, national and local events. Table 24 below shows the list of celebrations with the number of events conducted within the project areas. Refer Annex XLIII for the detail list of special occasions celebrated.

Table 24: Special occasions celebrated for WASH promotion

S.N.	Occasions	Events conducted (2012-2013)
1	World Environment Day and National Sanitation Week	19
2	World Water Day	7
3	Children's Day	5
4	World Hand Washing Day	7
5	International Women Day	4
6	Teej	10
7	World Toilet Day	2
8	General	9
	Total	63



World Water Day Celebration: Chhitali WSP inauguration (left) and orientation on water importance (right)

Sub-Activity ii Monitoring by WWASHCC and local community groups

WWASHCC and local community groups conducted monthly monitoring at the household level to speed up the toilet constructing process. The local community groups include various youth clubs, mothers' group TLOs etc.

Sub-Activity iii Initiation of sanitation campaigns by DDC, VDCs and Schools

Environment and Public Health Organization (ENPHO) with close coordination with D-WASH-CC Surkhet and V WASH CC Kalyan celebrated 20th World Water day at Kalyan VDC with the theme of "Water and Food security". Such various programs were conducted at project areas, which have been listed in Annex XLIII.



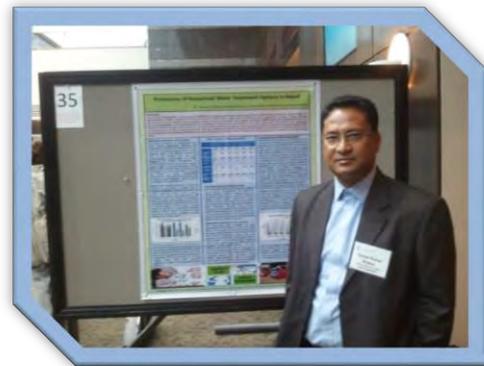
WASH exhibition at Salkot

ENPHO supported on the installation of sanitation booth at Salkot festival from 8-12th March 2012 with the initiation of RMSO. D-WASH-CC provided fund for promotional support and other stakeholders provided IEC materials. ENPHO provided IEC on Safe water, better sanitation, waste management, Indoor air pollution and hand washing. In spite this prototype model of sanitation technology such as sulav toilet, eco-san toilet, biogas attached urine diverting toilet and rain water harvesting system were provided from Regional WASH Resource center for demonstration.

Documentaries entitled 'Sugandhapur', 'Paribartan ka lahar haru', 'Nathakeka ghau haru', 'ODF ceremony of Jarbuta and Bibiyachaur VDC' were displayed on the occasion. More than 2000 people visited the stall.

Sub-Activity iv International Sharing Visits on HWTS

Dr. Suman K. Shakya, Executive Director of ENPHO, participated and presented the paper on “Promotion of Household Water Treatment Options in Nepal” in 2012 Water and Health Conference: Science, Policy and Innovation, organized by University of North Carolina at Chapel Hill, USA from 29th October-2nd Nov 2012. Similarly, Dr. Shakya presented a paper on “Point of Drinking Water Treatment Options in Nepal and a whole-sell arsenic biosensor with visual readout for use in the field program” in the forum organized by the Chancellor, Masters and Scholars of the Cambridge University, United Kingdom from 8th-15th Dec, 2012. The main objective of these papers was to share the household treatment options being practiced in Nepal and get innovative feedbacks from different international experts and institutions.



Paper on HWTS presented by Dr. Suman K. Shakya at the US

The exchange visits were productive for the purpose of expansion of networking of ENPHO with international agencies on the perspective of technology improvement. One of the major achievements of the visits was to learn different innovative, simple and low cost technology. Similarly, a collaborative action research on PoU was also developed with the University during the visits. The main objective of the research was to benefit local community of rural area of Nepal for safe water preference alternatives.

7 Case Study Collection

A list of case studies has been collected from the field with the support of ENPHO team and consultant. The case study has been compiled and published which is attached in Annex IX.

8 Sustainability

8.1 Safe Water

HWTS marketing has been commenced through mouth advertisement and exhibitions at school premises at the VDC level while through mothers’ group at municipal level during orientation and training events. However, due to the low profit margin, the mothers’ group dropped out Piyush selling. For future sustainability, project has supported on establishing 6 WASH marts. Refer Annex XIX for guideline and training manual on WASH Mart promotion and supply chain mechanism and the list of materials that are being sold at the market.

In the case of BSF, Mr. Mahendra Pandey has been increasing his business since 2012. He has been receiving continuous guidance and trainings on enhancing his business plan. The training on supply chain was conducted to all the entrepreneurs developed by ENPHO on BSF from 19th-22nd March 2012 in coordination with WET-Centre ENPHO where Mr. Suman Shakya from Smart Paani and Mr. Anil Thaman of MiceAid facilitated the business and supply chain techniques. In order to increase the marketing and production, an informal network named Bio-sand Filter Association of Nepal (BFAN Network) has been established with members of 15 entrepreneurs. They have committed on preparing work plan and for enhancing the bio-sand market within Nepal. Refer Annex L for the report and the list of members.

It was been found that CSF is the best options for fecal coliform removal during filter research. Though it is technically feasible option but due to the low market possibility and lack of product/ parts delivery, it was found to be the least feasible option in the case of Surkhet. There is high possibility of increasing CSF market if the

production and distribution could thoughtfully be managed. However, the product is easily available at Kathmandu District.

For the sustainability of the WSP at the water sources, funds are created by the WSP group within the water users' committee for future operation and maintenance. Apart from that local masons were trained on hands-on maintenance techniques. All the WSP implementation has been conducted with 80% contribution from the project and 20% from the community. So, the community led on taking the ownership for the O&M of the intervention.

8.2 Water Supply

The water supply schemes at the schools and VDCs have been conducted by applying 80% contribution by the project and 20% by the schools and community respectively in order to increase level of ownership. They have been provided with O&M fund of NRs 4000 with the matching fund deposited by the respective institution at their account for future regular operation and management.

Rain water harvesting, alternative water source, has also been promoted at three schools (one school in Kaprichaur, Sahare and Kalyan). These act as the demonstration on rain water harvesting for the entire VDC. The lack of drinking water has been pressing issue, which have been partially solved for at least a month (dry). The water quality report has shown that the water of Kalyan was contaminated with dust and water worms due to improper handling. The school assistants were oriented by the masons on the proper operation, management and cleaning of the systems.

8.3 Sanitation

During the installation of public toilets, ENPHO has done an agreement with respective VDCs and bazaar management committees (BMC) on taking the responsibility for its operation and management. The investment included 80% from the project and 20% from the VDC and community.

An assistant has been appointed at each public toilet to monitor and maintain the hygienic condition on a daily basis. However, the long term operating responsibility has been handed over to BMC under the supervision of respective VDC offices. According to the decision made by BMC and VWASHCC, it was decided that the public toilet assistants get the right to collect the money and treat it as his/ her income under following conditions:

1. The assistant will be responsible on monitoring, cleaning and taking care of the public toilet
2. He/ she will be responsible on providing sanitary facilities at the toilet
3. He/ she will be responsible on providing water at the toilet
4. He/ she will be responsible on transparency and sharing any issues on the open forum

In terms of household latrines, no subsidy approach has been implemented. Except ultra-poor households, all others built their latrines on their own cost. Maximum 9% of the total households have been provided very minimal subsidy ranging from NRs. 600-1700 depending on their capability to invest. This has increased the ownership towards the latrines.

ECOSAN promotion, biogas promotion, urine diverting toilet promotion have led the farmers to conduct research on the use of natural fertilizers. Growing interest with visible profit has increased in the demand on ecological sanitation. The required sanitation materials are easily available in the market areas. For better accessibility, ENPHO has established WASH markets.

ENPHO, in coordination with DWASHCC and VWASHCC, has also prepared post-ODF plan for each VDC so that the respective VDC could take the required steps towards total sanitation even after the project. The commitment

from each diverse sector has been beneficial. For instance: the Community Forests are willing to support required wood for toilet superstructure; Sector Unit Police (*Elaka Prahari*) are willing to support human resource during any construction phase; Water Users' Committees are interested on promoting water safety plan and HWTS at the community level; VWASHCC, political leaders, Su-Swastha Promotional Committee, institutions and others are eager on promoting the SWASTHA approach throughout the VDC through house-to-house awareness. In order to implement this plan, VWASHCC and local organizations have been taking the lead role.

8.4 Technical

Operation and management of all the WASH superstructures is the major concern within the project. Based upon the previous practices, Su-Swastha project has handed over the O&M plan of Ramghat Water Supply Scheme to the Ramghat Water Users' Committee for its long term management. Apart from that all the superstructures were handed over with required necessary documents and O&M fund.

In order to support the technical persons for long term O&M, refreshers were provided along with an agreement on supervising the infrastructures wherever required. Tool box were also provided to the trainees which are stationed at health posts, VDC office and schools for safety reasons. According to the agreement, the trainees have to report ENPHO on the progress of the O&M of any infrastructures biannually. The institutions and households have been informed to approach the local masons for any required assistance. In the case of public infrastructures, the respective committees and/ or institutions have been given the responsibility on handling the O&M.

9 Challenges

Following were the challenges identified during project implementation:

- Since there is scarcity of water in all project VDCs, local people are demanding large scale water supply schemes.
- Local people have a practice of using household water treatment options such as Piyush, Water guard when there is epidemic. Otherwise, they consume water directly from the source without any treatment options.
- Emphasis on sanitation has overshadowed safe water promotion at Non-Su-Swastha communities.
- Decreasing participation on V-WASH-CC meetings due to long distance and lack of financial benefit.
- Unhygienic toilet conditions due to lack of water.
- Frequent transfer of VDC secretaries and CEO of municipality.
- Frequent strikes and unsustainable political situation are hampering the project plan.

10 Efforts on Overcoming Challenges

The challenges were jointly overcome in coordination with RMSO, DWASHCC, VWASHCC, entrepreneurs, institutions and local community. Few challenges like lack of water, flood, transfer of government officers, unstable political situations were outside the reach.

For the demand of large water supply schemes, ENPHO facilitated the VDC to coordinate with RMSO and DDC on meeting their needs. RMSO and DDC have been reached with the problems on water supply during the ODF declaration events and through formal letters. VDCs have initiated on separating certain budget for small water supply schemes and sanitation activities. Even RMSO has separated budget for water supply schemes for Mehelkuna.

Safe water promotion at the Su-Swastha communities have reached 100% coverage as per the project target. However, in order to overcome the challenges on safe water promotion at non-Su-Swastha communities,

SWASTHA approach on cluster basis could be influential. Water users' committees are cooperating and have taken the responsibility on information dissemination towards safe water promotion.

On the other hand, safe water, sanitation and hygiene behavior was improved in the community through regular orientations and household visits. At the end of the WASH interventions, social audit were conducted for transparency and handover. Refer Annex XXXII and LI for the details of the audits conducted; Refer Annex XL for O&M guideline for water supply schemes; and Annex LII for guideline on public toilet.

11 Learning/ Strategy on WASH Improvement

One of the major learnings of the project was the importance of comprehensive household sanitation baseline survey with scientific sampling size and method to avoid skewed data analysis. Due to the deviated baseline report, NMIP data were referred to monitor the progress on sanitation improvement.

WASH has been the visible issue in rural Nepal; directly affecting human health and livelihood. Throughout the project implementation, various strategies have been applied to change the behavior of local people towards achieving safe water consumption, better sanitation and improved hygiene. Strategy used on one cluster/ tole does not work in other due to their geographical condition, ethnic background, changing livelihood, cognitive behavior, conservative thoughts, educational standard, interest, profit-making mind set and so on.

It has been observed that minimum three working team was required to make any approach or strategy successful. As per the experience of Su-Swastha Project, the following team listed in table 25 has supported on achieving success of the project. The main motivation for the team to involve were exposure visits, recognition and appreciation through the project and the community.

Table 25 Collective Team Effort Engaged in Su-Swastha Project

S.N	VDC/ Municipality	Effective Working Team
1	Ramghat VDC	Mothers' Group, WWASHCC, FCHVs and youth clubs
2	Kalyan VDC	Child clubs/ school teachers, FCHVs, Mothers' Group
3	Mehelkuna VDC	FCHVs, Child clubs/ school teachers, Mothers' Group
4	Sahare VDC	Child clubs/ school teachers, WWASHCC, FCHVs, Mothers' Group, VWASHCC core team and youth clubs
5	Kaprichaur VDC	Mothers' Group, WWASHCC, Child clubs/ school teachers and VWASHCC monitoring team
6	Birendranagar	WWASHCC, Child clubs/ school teachers, TLOs, FCHVs and Mothers' Group

11.1 Safe water promotion

Safe water promotion has been effective at the schools, its catchment areas, WSP implemented communities and Su-Swastha Communities. It has been found that 100% households within the Su-Swastha Communities and 100% schools within the intervention areas have awareness on PoU options and using filters before consuming water. The major reasons behind this are:

1. Provision of filters
2. Free supplies and distribution of Chlorine solutions during monsoon
3. Agreement binding the committees on providing safe water
4. Demonstration of P/A vial water quality tests
5. Adopting the lessons learnt

Though similar approaches were applied at the HHs of non-Su-Swastha communities, the promotion were limited due to the lack of committee formation, lack of regular monitoring and no provision of filters; as done in the above mentioned focused areas.

It was found during the impact survey that among 43.7% HHs that do not treat their water, only 27% of them had lack of knowledge on getting access of PoU options. However, it has been found that they know about the consequences of drinking untreated water. It has been observed that neighborhood and presence of at least four to five active and influential social workers, political leaders and youths inclined towards WASH promotion supported on bringing change in the community.

It has been clearly detected through the health post records that the use of PoU options is one of the major reasons behind the significantly reduction on water borne diseases. Apart from that the initiation of Water Safety Plan for local sources has helped local people on understanding the need of hygienic condition of the water sources. The best learning among all was the increase in awareness among the people of Su-Swastha community on adapting the behavior of safe water consumption from source to mouth.

The struggle did exist while changing the behavior at the local community level and organizational level on not promoting subsidy for the distribution of filters and chlorine solution. It has been experienced that free distribution halted the behavior change process, making the community more dependent on external financial sources. The change came with time. However, the conditions applied were the compulsory contribution or involvement of the community/ household and giving them responsibility towards the O&M.

11.2 Better Sanitation

Toilet promotion without subsidy at the areas lacking water supply was a challenge in itself. However, government pressure, achieving total sanitation targets and motivation to the VWASHCC after the declaration by the GoN were few factors initiating the top-bottom approach. Among all, one of the strict method was sanitation card promotion which is distributed to the household with improved latrines. VWASHCC and MWASHCC published pamphlets and announced through local radios that all facilities and citizenship cards provided by the VDC and municipality offices were halted to those not having the sanitation card. The active teams at each VDC listed in Table 25 were the major front line workers that made the sanitation improvement and WASH promotion possible.

The interest on biogas toilet was tremendous due to the increased government subsidy (up to NRs 30-35,000). This interest was huge at Ramghat VDC since it was promoted by few other projects since early 2010. While only selected farmers preferred ECOSAN. During the ECOSAN promotion, project provided a set of pan, cement and technical supervision while the remaining cost of NRs 15,000 to NRs 20,000 was born by the HH. The high cost overshadowed the benefits of ECOSAN. This resulted in reducing the target of 100 ECOSAN on project log-frame to 10 ECOSAN and diverting the cost towards sanitation promotion at public places and institutions. The revised log-frame of the project with defined output is attached in Annex LIII.

Gender friendly urine diverting toilets and urine application on different vegetables have been experimented at two schools of the project areas. This initiation is expected to have tremendous increase on the interest of local farmers on using urine as fertilizers. The JTA students have already commenced the comparative study.

It has been experienced that making latrines sustainable required firstly the ownership, secondly the responsible unit on monitoring the system and thirdly the school assistant with hands-on competency on dealing with minor technical problems and maintaining the hygienic conditions on a regular basis. It has been found during the observation of the school latrines that accumulation of minor negligence has resulted in closing out or not using the latrines.

Apart from toilet promotions, solid waste management and waste water management have been achieved through the involvement of Su-Swastha Community Promotion Committees and community mobilizers. Solid waste management have also been focused at the school through SMC and child club members. The most effective awareness material on promoting sanitation has been documentary shows. Mason trainings and refreshers have added the value on further supporting the promotion.

There were even cases where the households did not lie under the ultra-poor category and were rigid on not constructing toilets since they preferred waiting for subsidy. There were many aggressive people who threatened the CMs, youth volunteers and even child club members. It was time consuming and challenging to tackle such difficult population. Pressure from the top-most level such as DWASH, VWASH, political parties and Police had to intervene in such cases.

11.3 Improved Hygiene

Hygiene improvement has taken speed due to school children and child club members. Continuous hand-washing trainings, school cleanliness and installation of child friendly hand-washing provision have resulted in the increase hand-washing behavior. Refer impact study for the details. It was also found that 100% hand-washing facilities was available at Su-Swastha Community due to the active involvement of the committee.

It has been found through the project experience that providing materials like filters, chlorine solutions, toilet pans, sanitation/ hygiene materials free of cost had its own pros and cons. During the start of the program, it was hypothetically believed that such promotion could help them adopt on using such materials so that they continue using them in the coming days. But in reality, it was found that when the products were distributed free of cost, its value decreased so did the ownership. People tend to have less attachment towards the free products.

However, community contribution, involvement of committees/ institutions on fund mobility and their participation on decision making have resulted on speeding up the WASH improvements with high level of transparency. On top of that regular meetings, refresher trainings and exposure visits have motivated the committees to support the project selflessly for the community benefit.

Fund management and use of collected fund for the community were the best examples towards local development through self-initiation of Su-Swastha project. This includes proper use of collected fund through candle distribution and Dapcha Su-Swastha declaration which could be ranked the most motivated moments.

12 Conclusion

Entire project VDCs have been declared ODF and 10 communities have been declared as Su-Swastha Community. Apart from the planned VDC, Maintada has also been declared ODF with the facilitation of the project. The project facilitated on preparing the post-ODF plan for the VDCs to achieve total sanitation as targeted by the government of Nepal.

Apart from water and sanitation improvements within the project areas, the project established 6 WASH-marts to strengthen supply chain and make the PoU and sanitation products easily available for the target community. The guideline and training manual for WASH-Mart promotion and supply chain mechanism for the entrepreneurs was developed to enhance WASH business planning.

In order to overcome the issues raised at the project VDCs, various strategies have been adopted – these include making the voice of the community heard, effective involvement of influential political leaders, mobilizing diverse staff, organizing refreshers trainings, O&M trainings, exposure visits wherever required and conducting mass orientations from motivational experts and regular coordination meetings with VWASHCC. The guidelines,

strategies, policy formulation, plans and manuals prepared through the project are expected to achieve project sustainability and long-term benefits for project areas.

For the sustainability of safe water consumption practice and improved sanitation and hygiene behavior, it is essential that post-project evaluation should be conducted. The learning experienced through the project and its outcome are expected to benefit various similar projects in Nepal.