

eco-friendly living for sustainable planet



2015 ANNUAL REPORT



ENVIRONMENT & PUBLIC
HEALTH ORGANIZATION



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Acronyms

AEM	Activated Effective Microorganism
BCC	Behaviour Change Campaigns
BNM	Birendranagar Municipality
CREEW	Centre of Research for Environment, Energy and Water
CSP	City Sanitation Plan
CSF	Colloidal Silver Filter
CBS	Community Based Sanitation
CHP	Community Health Promotion
DEWATS	Decentralized Waste Water Treatment System
DWSS	Department of Water Supply and Sewerage
DMC	Disaster Management Committee
DRR	Disaster Risk Reduction
EAWAG	Swiss Federal Institute for Aquatic Science and Technology
ECD	Early Child Development Centre
ECOSAN	Ecological Sanitation
E-WASH	Emergency Water Sanitation and Hygiene
ENPHI	Environment and Public Health Institute
ENPHO	Environment and Public Health Organization
FSM	Faecal Sludge Management
FIETS	Financial, Institutional, Environmental, Technological and Social
FY	Fiscal Year
GIS	Geographic Information System
GSF	Global Sanitation Fund
HP	Health Post
HWTS	Household Water Treatment Option and Safe Storage
HR	Human Resource
IEC	Information, Education and Communication
ISO	International Organization for Standardization
KAF	Kanchan Arsenic Filter
KUKL	Kathmandu Upatyaka Khanepani Limited
MIT	Massachusetts Institute of Technology
ODF	Open Defecation Free

O&M	Operation and Maintenance
PME	Planning Monitoring and Evaluation
PoU	Point of Use
P/A	Presence/Absence
PHCC	Primary Health Care Centre
RTI	Ready To Install
RC	Resource Centre
RUAF	Resource Centre on Urban Agriculture and Food Security
SWASTHA	Safe Water, Sanitation and Hygiene for All
STTS	Sensitization Tools of Total Sanitation
SODIS	Solar Water Disinfection
SACOSAN	South Asian Conference on Sanitation
SHP	Sub-Health Post
SMS	Support My School
SUSIL	Support School for Improved Learning
SWASH	Sustainable Water, Air, Sanitation and Hygiene
UNICEF	United Nation Children Education Fund
USAID	United States Agency for International Development
USSH4A	Urban Sustainable Sanitation and Hygiene for All
VDC	Village Development Committee
VCA	Vulnerability Capacity Assessment
WASH	Water, Sanitation and Hygiene
WATSAN	Water and Sanitation

Foreword

The year 2014-15 is remembered by all as the mega earthquake year. As ENPHO continues to grow and mature, the great earthquake forced us to temporarily halt our regular program for three months in order to redirect our efforts to earthquake relief and construction activities. However, disasters often come with opportunities. The earthquake made us stronger, more united and more determined. We expanded our partnership, received new project grants and hired many new staff members and volunteers. We also received additional funding from a range of donors and well-wishers for “emergency” projects. Out of 14 earthquake affected districts, ENPHO worked in 11 districts. We would like to thank our donors for supporting and trusting us. The effort of our field staff, support staff and our officers and managers was much appreciated by our donors, media and the local beneficiaries.

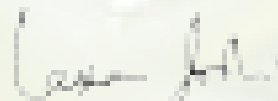
Regular work on WASH service delivery, DEWATS, Faecal Sludge Management and water quality continued. ENPHO continued to promote the concept of SWASH (Safe Water, Air, Sustainable Sanitation and Hygiene) through project activities, training, campaigns and media. ENPHO received the 4th Kyoto Water Grand Prize, awarded at the 7th World Water Forum in Daegu, Korea in April. The World Water Forum awards the prize to an organization involved in grass-roots activities dealing with water problems, to serve as a model for others. ENPHO was also awarded the Humanitarian Water and Food Award 2015 at the EXPO 2015 Milan. The award was to recognize outstanding institutions for developing sustainable solutions to deal with issues of “Climate Change, Desertification, Pollution, Hunger and the Lack of Clean Drinking Water”.

The 2014-15 year was also the final year of our strategic plan. Capitalizing on ENPHO’s experience, extensive network and partnership and committed staff, ENPHO is growing from strength to strength. We are moving forward with a new strategy that will firmly establish ENPHO as a leader in developing, demonstrating and disseminating innovations in the fields of WASH and waste management.

We are committed to change for the better and we are prepared for the challenges that this will bring. The Executive Board firmly believes that ENPHO has a bright future along with new responsibility. We thank our partners, government agencies, donors and our dedicated staff for an unusual but excellent year.

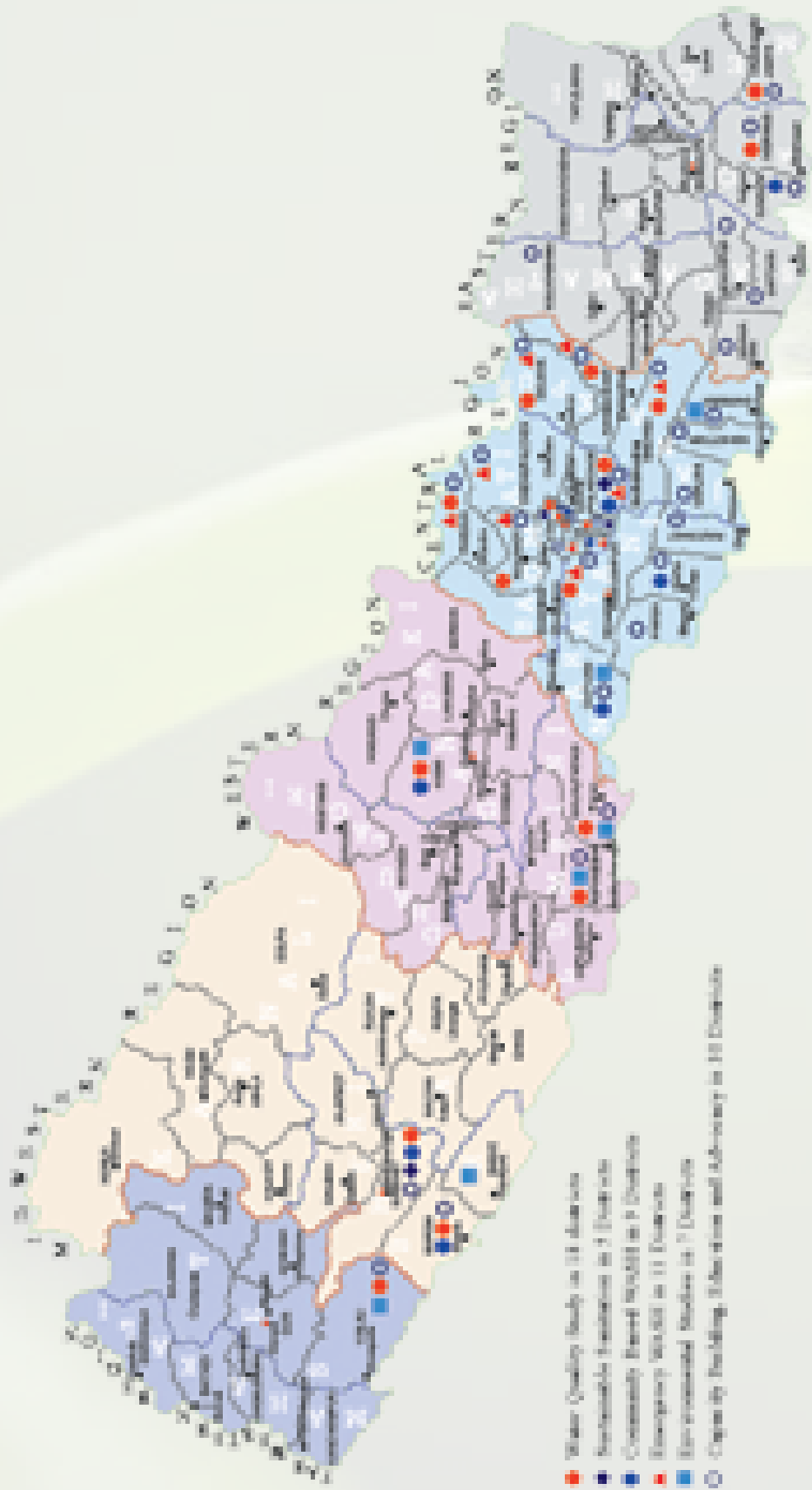


Ms. Urmila Joshi
Chairperson



Dr. Laxman Joshi
Executive Director

Project Location Map



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Introduction

Established in 1990, ENPHO is a service-oriented, scientific, national Non-Governmental organization that envisages contributing in sustainable community development by combining research and actions through the integrated programs in the areas of environment and public health. ENPHO runs a government accredited laboratory and promotes eco-friendly technologies such as SODIS, ECOSAN toilets and waste water treatment through reed bed systems.

ENPHO develops and promotes integrated community based approaches endorsing safe water, sustainable sanitation, solid waste management, safe hygiene behaviour, improving indoor air quality, and environmental and air quality monitoring to create healthy societies. Furthermore, knowledge-based education and advocacy campaigns help to achieve ENPHO's mission.

Vision

Creating Eco-Societies

Mission

Develop, demonstrate and disseminate appropriate technologies to enable societies become healthy and environment friendly.

Goal

To support environmental research, sustainable sanitation, hygiene practices and safe drinking water contributing to the achievement of the national target.

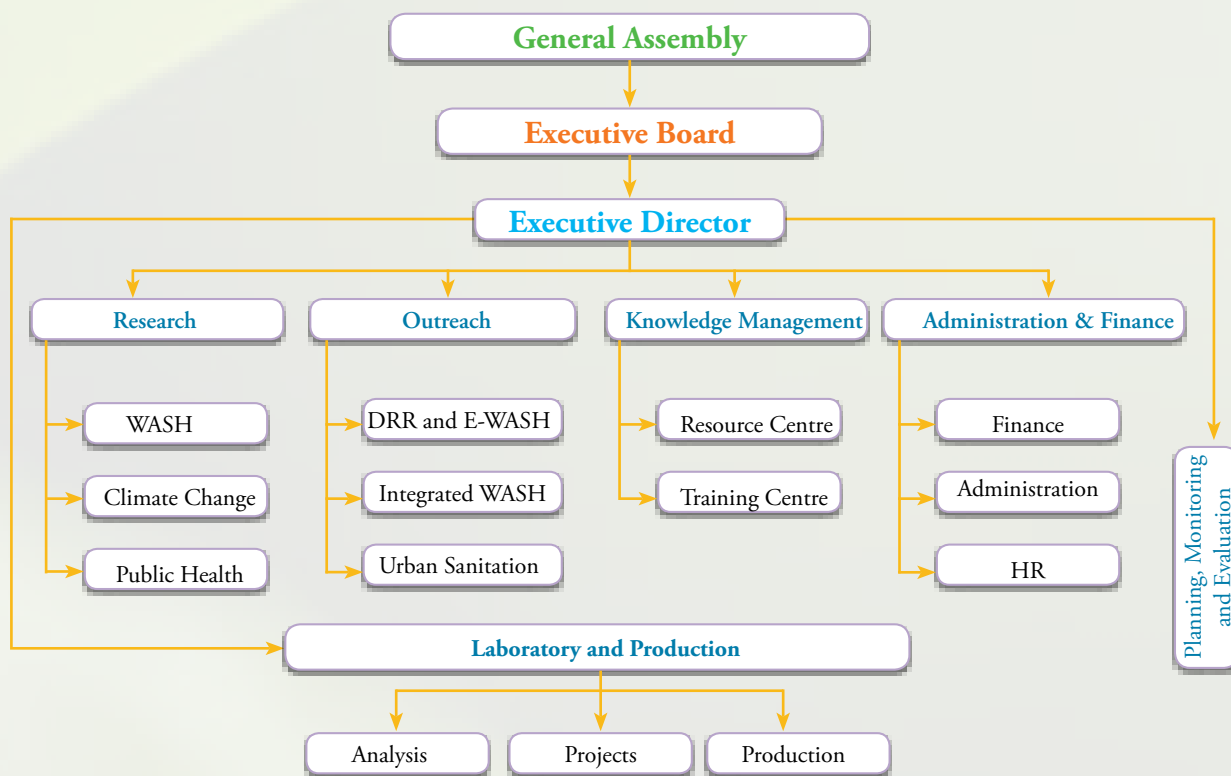
Strategic Objectives

- To scale up the promotion of environmentally friendly and sustainable sanitation systems.
- To ensure improved access to safe drinking water.
- To promote integrated water optimization technologies.
- To enhance knowledge on hygiene behaviour and sanitation practices.
- To promote and implement WASH in emergencies.

In order to achieve its goal of promoting eco-friendly societies, ENPHO

- conducts research and develops appropriate technologies that are acceptable to local communities using local resources;
- demonstrates eco-friendly technologies and practices;
- develops and implements effective strategies to promote eco-friendly technologies;
- implements community development programs;
- networks with partners for coordination and advocacy;
- enhances organizational capacity; and
- develops local capacity through training and orientation.

ENPHO is governed by a General Assembly comprising of 94 members, which elects an Executive Board once every three years. ENPHO staff consists of 146 people, out of whom 45% are women.



Organizational Structure of ENPHO

ENPHO's Milestones

1990	Water Quality Monitoring of Bagmati River and Kathmandu's Water Supply System
1992	Initiated Air Quality Monitoring for the first time in Nepal within Kathmandu Valley
1994	Production and distribution of PIYUSH® Chlorine Solution
1997	Introduced Constructed Wetlands for Wastewater Treatment System in Nepal
2000	ENPHO Laboratory accredited by a Government body "Nepal Bureau of Standard and Metrology" under NEPLAS system based on ISO 17025
2000	Production of ENPHO test kit, Arsenic Testing and Mitigation activities initiated in the Terai
2001	Initiated Research on SODIS and ECOSAN
2003	Received Award for Kanchan™ Arsenic Filter at World Bank Development Marketplace
2005	Environment Award from Ministry of Environment, Science & Technology
2006	Carried out Country Environment Analysis for the World Bank
2007	Initiation of Integrated Community based WATSAN Programme & Declaration of Open Defecation Free (ODF) at community level
2008	Scaling up of waste water treatment system at municipal level and integration of bio-gas system
2009	Received "Partnership for Clean Indoor Air (PCIA)" Award for Air Quality Improvement
2009	Establishment of Environment & Public Health Institute (ENPHI) within ENPHO
2009	Initiation of <i>Paschim Paaila</i> - A Youth Campaign against Diarrhea Epidemic in Western Nepal
2009	Establishment of Nepal Node for Sustainable Sanitation
2010	ODF declaration at VDC level
2011	ECO-SAN poster attained the first prize in pre-SACOSAN IV in Colombo, Sri-Lanka
2012	Started working on urban disaster risk reduction with focus on emergency WASH
2013	Promotion of Roof Top Agriculture as an adaptation for climate change
2014	Feecal sludge management – service delivery, business model and private sector engagement – in Kathmandu valley
2015	The 4 th Kyoto World Water Grand Prize
2015	Co-winner of the The Humanitarian Water and Food (WAF) Award

Key Achievements

During the fiscal year 2014/15, ENPHO carried out various projects and programs in the areas of safe water, sustainable sanitation, community based water sanitation and hygiene, disaster risk reduction, emergency WASH and environmental studies. Along with the regular programs, ENPHO in collaboration with various agencies implemented emergency WASH response activities in 11 earthquake affected districts in response to aftermath of devastating earthquake on 25 April 2015. ENPHO took the leadership role in production and distribution of Piyush as well as to train and mobilize youth volunteers on Emergency WASH response activities.

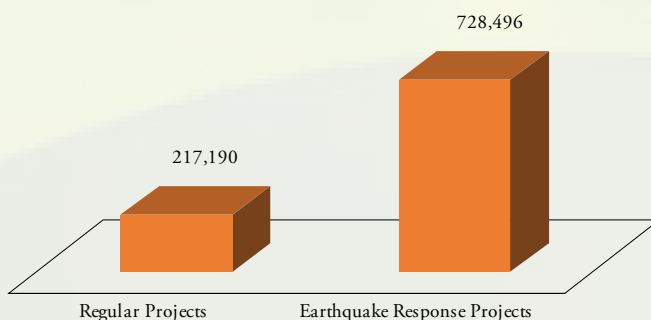
Altogether, 28 projects were carried out in which 14 have been successfully completed and 14 are being implemented. Out of 28 projects, 2 were on 'Safe Water', 3 on 'Sustainable Sanitation', 12 on 'Community Based Water, Sanitation and Hygiene', 8 on 'Disaster Risk Reduction and Emergency WASH' and 3 on 'Environmental Studies'. Within this fiscal year, altogether, 945,686

people were benefitted through various WASH projects and programs in which 217,190 people benefitted through regular projects and 728,496 through various earthquake response projects. Likewise, altogether, 621,046 bottles of Piyush were distributed in the fiscal year fulfilling the significant demand during the earthquake response period.

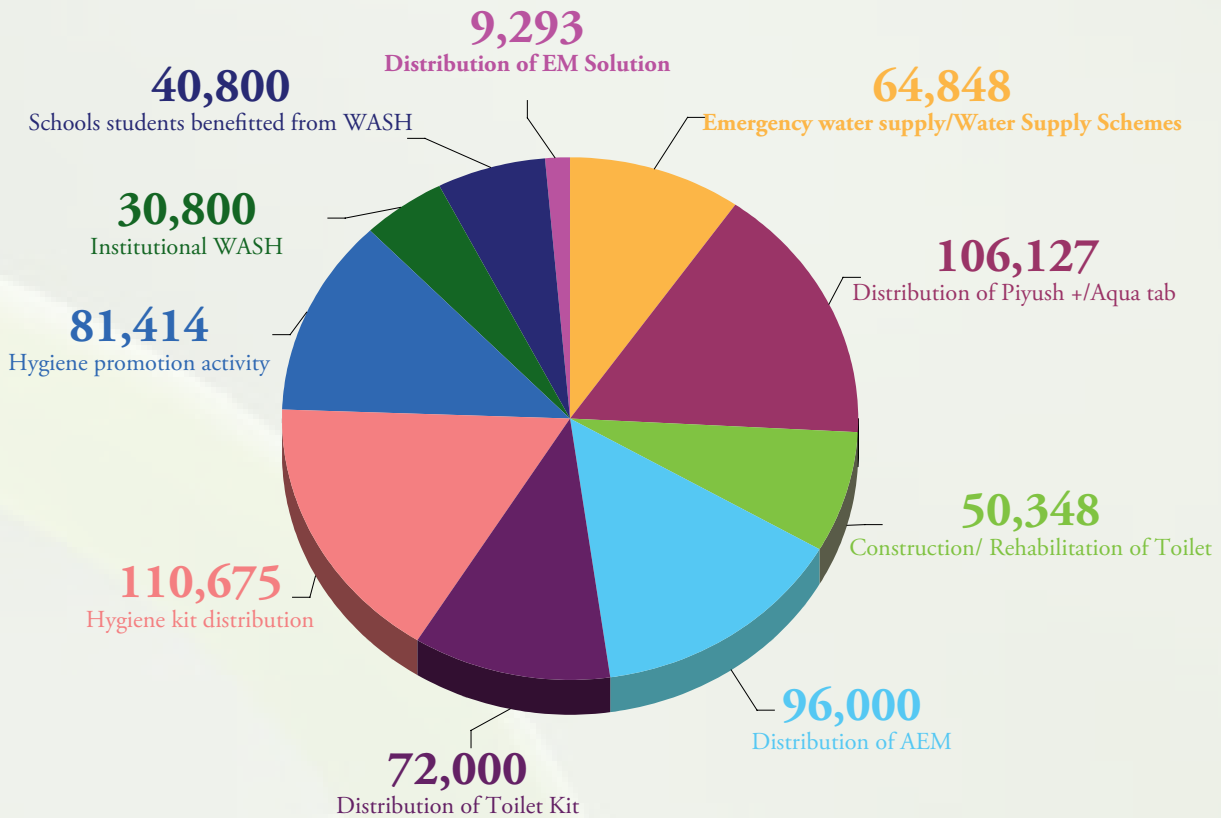
This fiscal year 2014/15, ENPHO contributed in declaring five VDCs and one municipality as ODF benefitting 74,870 population. In addition, five communities were declared as "SWASTHA community" where every households use improved sanitation facilities, safe drinking water options, practice better hygiene behaviors, manage organic waste at household level and use improved cook stoves for the cooking.

Ready to Install (RTI) toilet casing (superstructure) was designed and developed by ENPHO to provide immediate sanitation services during the earthquake response period.

People Benefitted



In order to prevent possible outbreaks of water borne diseases and respond immediately on WASH facilities, ENPHO with the support of other agencies implemented emergency WASH response activities in earthquake affected areas. Altogether 473 Paschim Paaila youths were mobilized in WASH campaigns including earthquake response activities. The figure below shows the people benefitted through various WASH facilities.



People benefitted through Earthquake Response Activities

ENPHO Water Expertise and Training Centre (ENPHO WET Centre) built capacity of 404 people by conducting 77 trainings on WASH.

ENPHO received 4th Kyoto World Water Grand Prize 2015 amidst a ceremony held in April 2015 at the 7th World Water Forum in Daegu, Korea. ENPHO was selected from the 110 applications from 37 countries. The prize was awarded to ENPHO by The Japan Water Forum for the involvement and contribution in grassroots activities dealing with water problems, to serve as a model for others. Similarly, ENPHO received another achievement as a Co-winner of The Humanitarian Water and Food (WAF) Award 2015. The award was presented for its notable contribution in safe water through biosand filter entrepreneur’s network to rural and local communities in Nepal.



4th Kyoto World Water Grand Prize



The Humanitarian Water and Food (WAF) Award

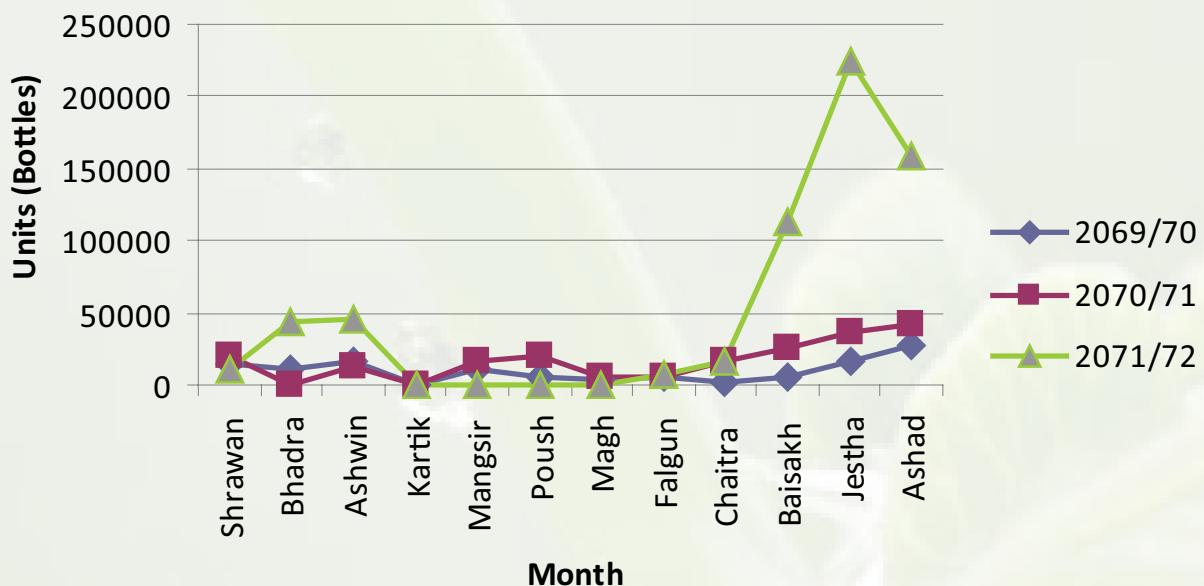
Programs

Safe Water

Production and Distribution of Piyush and Piyush Plus

With the aim of promoting access to safe water to all, ENPHO has been producing and promoting Piyush (0.5% chlorine) and Piyush Plus (0.7% chlorine). Piyush is now an established brand for drinking water treatment in Nepal. Following the devastating earthquake on 25th April 2015, the demand of Piyush from many agencies, partners and individuals increased significantly, particularly for use in earthquake affected areas. A total of 621,046 bottles of Piyush and 170,033 bottles of Piyush Plus were distributed in the fiscal year. Piyush Plus, a 240 ml bottle, is for disinfecting large volumes of water (10-15 L) at household level.

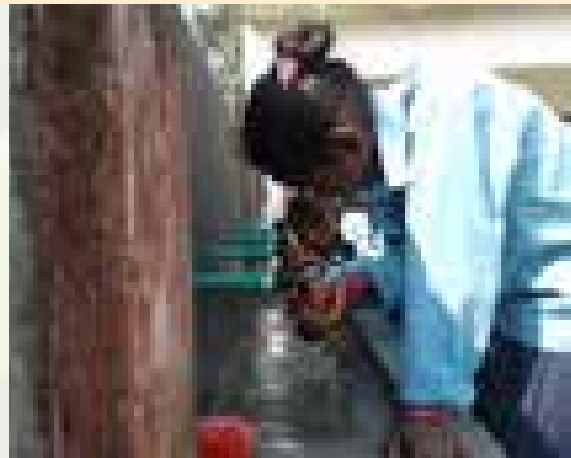
Monthly Sale of Piyush in Three Years



Improving Health of School Students by Providing Arsenic and Pathogen Free Safe Drinking Water in Schools

Project Partner: Dubai EXPO 2020- Live partnership fund, MIT, CAWST and Schools
Project Area: 20 selected schools from arsenic affected districts
Project Duration: Nov 2013 to Nov 2015
Status: Ongoing

The project aims to improve the health of school students by providing arsenic and pathogen free safe drinking water by installing large Kanchan Arsenic Filters (KAF), developed jointly by MIT and ENPHO as an innovative water treatment option. Twenty schools from arsenic affected districts have been selected and 10 local technicians have been trained for KAF construction and installation. Before the end of the project, twenty large KAF's will be installed along with orientation on safe drinking water to students and teachers. At least 15,000 students and teachers will benefit from the project.



Water Quality Monitoring of Different Water Sources of NWSC in Pokhara

Project Partner: CREEW
Project Area: Pokhara, Nepal
Project Duration: 25 Apr 2015 to Aug 2015
Status: Completed

In collaboration with Centre of Research for Environment, Energy and Water (CREEW), ENPHO conducted a water quality survey in Pokhara. Water samples were taken from four river water intakes, two water reservoirs and tap water from 100 households. Analysis was conducted at ENPHO's laboratory. The quality of water supplied by Pokhara Water Supply Improvement Project during dry and wet seasons was determined.



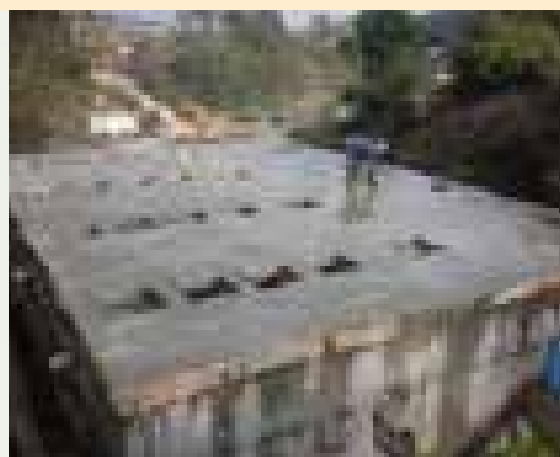
Sustainable Sanitation

ENPHO has been promoting sustainable sanitation systems that are economically viable, socially acceptable, technically and institutionally feasible and environmentally suitable.

Poverty Reduction and Sustainable Protection of Natural Resources in South Asia

Project Partner:	Bremen Overseas Research and Development Association
Project Area:	Various locations in Nepal
Project Duration:	Jan 2015 to Dec 2015; closing of 2011-2015 Phase
Status:	Ongoing

This project aims to increase the knowledge and dissemination of information on wastewater treatment using decentralized wastewater treatment systems (DEWATS). This includes technical support to various organizations on design, implementation, operation and monitoring of DEWATS. Operation and maintenance funds were established under two DEWATS flagship projects at Sunga and Shreekhandaapur. DEWATS community based sanitation (CBS) plant was completed at Deshe village, Gokarna with support from SOMNEED International and SOMNEED Nepal. At least 250 households are benefitting from the project.



Demonstrating Effective Faecal Sludge Management System for Pro-Poor Sanitation Service Delivery in Panauti Municipality

Project Partner:	WaterAid Nepal
Project Area:	Panauti Municipality
Project Duration:	Jul 2014 to Mar 2016
Status:	Ongoing

This project was designed to perform an intensive study on the current FSM situation and practices in Panauti Municipality in the Kavre district. This study will further enable the formulation of strategies for effective FSM in the municipality and enhance the capacity of local

stakeholders in FSM. In particular, this project will be a milestone project in demonstrating an effective model of FSM for sector learning and wider replication in other cities of Nepal.

A consolidated report on FSM and practices in Panauti has been finalized based on a study carried out in collaboration with the municipality. Key issues related to FSM in the city were identified for further action. Altogether 25,375 people using on-site sanitation systems in Panauti Municipality are benefitting from the project.

Stimulating Faecal Sludge Management (FSM) Business for Effective Service Delivery in Sustainable Sanitation through Private Sector Engagement in Kathmandu Valley

Project Partner:	The Bill and Melinda Gates Foundation, DfID, Lalitpur Municipality Office, One Planet Solutions Pvt. Ltd.
Project Area:	Kathmandu Valley
Project Duration:	May 2014 to Nov 2014
Status:	Completed

The Government of Nepal has set a target of achieving universal access to sanitation in the country by 2017. Many agencies are promoting various sanitation systems but proper planning of FSM is often neglected, leading to severe damage to the environment. FS generated from on-site sanitation systems in urban areas are disposed haphazardly into the environment and illegally dumped into the sewers due to the lack of proper FS treatment systems. ENPHO implemented this project in order to develop a comprehensive FSM strategy and business model for Kathmandu Valley by assessing the current status, institutional arrangements, potential partners, policies, guidelines and associated problems.



A household survey was conducted in order to identify the on-site sanitation systems and FS services in Kathmandu valley. An initial survey revealed that 11 private operators are providing desludging services in the valley. The calculations showed that about 170,000 m³ faecal sludge is emptied annually. An analysis of institutional and policy frameworks of relevant stakeholders revealed a lack of proper by-laws, policies and guidelines for effective FSM in Kathmandu valley. A viable business plan was also prepared by Shreekhandaapur Wastewater Treatment System that includes FSM.

Community Based Water Sanitation and Hygiene

ENPHO has been implementing community based water, sanitation and hygiene approach in different communities, municipalities and schools for safe water, sustainable sanitation and improved hygiene.

Support School for Improved Learning (SUSIL) Project – “4th Kyoto World Water Grand Prize-2015”

Project Partner:	Japan Water Forum, District Education Office (Surkhet) and Birendranagar Municipality
Project Area:	Birendranagar Municipality
Project Duration:	April 2015 to May 2016
Status:	Ongoing

ENPHO received the 4th Kyoto World Water Grand Prize-2015 amidst a ceremony held on 17th April at the 7th World Forum in Daegu, Korea. The prize is awarded by the Japan Water Forum to an organization involved in grass-roots activities combatting water problems, which may serve as a model for others. ENPHO was selected among 110 applications from 37 countries.



With the prize money, the SUSIL project is being implemented in 11 public schools and Early Child Development Centres (ECDs) in Birendranagar Municipality in partnership with the District Education Office (Surkhet) and Birendranagar Municipality. The project aims to mobilize the schools and ECDs to become hubs to promote and demonstrate safe water and sanitation for the surrounding community and households. The project includes installation of a Rain Water Harvesting (RWH) system, ground water recharge, bio-sand filters, rehabilitation of sanitation facilities and hand-washing platforms, using child-friendly and gender-friendly technologies as per the need of the school. It also acts as a demonstration and information distribution point for the community.

11 schools have been selected to participate in the project and technical assessment for WASH improvement has been conducted. Altogether 4500 students and 240 teachers are expected to directly benefit from the project while over 10,000 people in the communities near the schools will benefit indirectly through enhanced awareness.

Development of a City Sanitation Plan for Madhyapur Thimi Municipality and Piloting its Components through Coordinated and Pro-Poor Service Delivery Approach

Project Partner:	WaterAid Nepal
Project Area:	Madhyapur Thimi Municipality
Project Duration:	Jul 2014 to Mar 2016
Status:	Ongoing

The project was designed for Madhyapur City Municipality with a view to develop a practical City Sanitation Plan (CSP) that can address emerging and challenging urban sanitation issues. The project will prepare guidelines in the form of a CSP through elaborative assessments, community participation and sector coordination.

Several major initiatives such as formation of a CSP task force, capacity building of local stakeholders, community-based workshops, household surveys, river water quality monitoring and consultation workshops have been completed. ENPHO is providing technical assistance to the task force led by Madhyapur Thimi Municipality in finalizing the CSP.



Promote Safe and Productive Use of (Solid and Liquid) Waste for Food Production Around Urban Settlements in Surkhet

Project Partner:	Resource Centre on Urban Agriculture and Food Security (RUAF Foundation), the Netherlands
Project Area:	Birendranagar Municipality, Janajyotee Higher Secondary School, Nepal Rastriya Higher Secondary School
Project Duration:	Nov 2014 to Sep 2015
Status:	Ongoing

This project was developed for implementing a WASH programme on the productive reuse of waste in urban settlements in Birendranagar Municipality, Surkhet. Assessment

of waste reuse components namely the quantity, quality, price of water and nutrients, potential users, and cost benefit analysis has been conducted. A monitoring protocol with indicators on nutrients, water, energy, agricultural production and income generation has been developed based on FIETS framework of WASH and linked to the WASH PME framework.



Sustainable Water, Air, Sanitation and Hygiene Project at Nagarkot VDC (SWASH)

Project Partner:	Water Aid Nepal
Project Area:	Nagarkot VDC (Ward No. 11, 12, 13 of newly formed Mahamanjushree Municipality), Bhaktapur, Suntole VDC (Ward No. 6, 7, 8 of newly formed Shankharapur Municipality), Kathmandu
Project Duration:	Apr 2013 to Dec 2016
Status:	Ongoing

The *Sustainable Water, Air, Sanitation and Hygiene (SWASH)* project is a community based WASH project initiated in Nagarkot in April 2013. The SWASH project, now in its third year, involves an integrated approach to promote a healthy community. The project also demonstrates low cost sustainable sanitation options and links sanitation with agriculture and livelihood. After the major earthquake on 25th April, a huge number of houses and latrines were damaged, therefore reconstruction



was necessary within the already ODF declared VDCs. The project was re-structured to integrate the recovery of WASH after the earthquake and upgrade the existing WASH situation of the affected VDCs with the target of reinstating ODF status. The project staffs are working together with local stakeholders to reinstate ODF status in Bhaktapur.

Three communities (Ward 1, 3 and 9) have been declared “*SWASTHA Communities*”. More than 3000 people are benefitting from improved WASH services along with improved hygiene behaviours at both community and school levels. Altogether 2083 people are directly benefitting from the rehabilitation of three large and three small water supply schemes. There are 803 direct beneficiaries of latrine construction work.

Implementation of “SAFA and SWASTHA Gulariya” Project

Project Partner:	Practical Action Nepal
Project Area:	Gulariya Municipality
Project Duration:	Apr 2013 to Dec 2016
Status:	Ongoing

The “SAFA and SWASTHA Gulariya” Project aims to achieve sustainable ODF status in Gulariya Municipality by 2015, a contribution to the national target of universal sanitation by 2017. The project, initiated in 2009 in partnership with Practical Action Nepal, supported ODF declaration in four communities (with more than 1,500 population) to trigger the municipality’s ODF campaign. Following this, Gulariya municipality initiated its sanitation program with the support of UN-Habitat under the Global Sanitation Fund (GSF).



The municipality also mobilized a significant amount of its own resources and budget for the program. Gulariya municipality was declared ODF on 4th June 2015. A strategic plan for post-ODF interventions, including effective FSM, has been prepared. An additional formative research on climate resilient sanitation options was also carried out.

Open Defecation Free Campaign in Bara District

Project Partner:	UN Habitat, Nepal Red Cross Society, Bara district chapter
Project Area:	15 selected VDCs at Bara
Project Duration:	Mar 2014 to Oct 2015
Status:	Ongoing

Bara is one of the 8 districts where sanitation coverage is as low as 27%. With the support from the GSF project, ENPHO has been working together with the Nepal Red Cross Society District Chapter Bara to implement the ODF campaign in 15 selected VDCs. The project intends to support the government’s initiatives to execute the ODF campaign in the Bara district through sector coordination and capacity development. At the end of the



project, at least 8 VDCs will be declared ODF with about 130,000 people as direct beneficiaries in the 15 VDCs. To date, two VDCs, Bharatgunj Singhouli (first ODF VDC in the district) and Amlekhgunj, have been declared ODF VDCs in Bara district.

Green Homes – Promoting Sustainable Housing in Nepal

Project Partners:	UN Habitat, Clean Energy Nepal, SLTDC, FNCCI, Lalitpur Municipality, Pokhara Municipality, Dharan Municipality
Project Area:	Lalitpur Municipality, Pokhara Municipality, Dharan Municipality
Project Duration:	Dec 2013 to Oct 2015
Status:	Ongoing

Green Homes or Sustainable Housing is an approach that includes modified systems to minimize negative impact on natural resources and to promote human well-being, social equity and green economy. This project promotes sustainable housing technologies and services that contribute towards the mitigation of climate change and reduction of poverty through the creation of green jobs and a move towards a green economy. Under this project, training modules on water, wastewater and waste management for household level have been designed. Several trainings were conducted for young entrepreneurs, practitioners and technical persons. ENPHO is one of the expert members developing the Green Building Guidelines. ENPHO is providing technical expertise in water, wastewater and waste management.



Sustainable Water, Sanitation and Hygiene (SWASH) Project in Birendranagar

Project Partner:	WASTE, the Netherlands
Project Area:	Birendranagar Municipality, Surkhet
Project Duration:	Oct 2011 to Dec 2015
Status:	Ongoing

This Sustainable Water, Sanitation and Hygiene (SWASH) project (2011 to 2015) is being implemented in Birendranagar Municipality, Surkhet, in collaboration with local stakeholders. The project is financially supported by the Dutch WASH Alliance (WASTE, The Netherlands)

through the Nepal WASH Alliance. The project aims to declare Birendranagar Municipality as ODF and to provide improved access to safe drinking water, sanitation services and hygiene facilities in six wards – 1, 2, 3, 7, 11 and 12, including 3 schools.

Increasing local capacity, service delivery, advocacy and social campaigning are the major components of the project. Environmental sanitation, promotion of SULAV toilets, ECOSAN and biogas toilets, improved water supply, gender, equity and social inclusion sensitive approach are the key outputs from the project.



Support My School (SMS) Campaign in Nepal

Project Partner:	Bottlers Nepal (Coca-Cola Company), UN Habitat, Teach for Nepal, Bottlers Nepal Limited, SPLASH Nepal, Youth Society Nepal
Project Area:	18 schools in Lalitpur district, 2 schools in Chitwan district
Project Duration:	Jul 2014 to Mar 2015
Status:	Completed

Schools are one of the most important learning centres and improved WASH facilities including clean education and sports facilities are crucial at schools. To promote an integrated school environment improvement plan, ENPHO with the support of Bottlers Nepal and UN Habitat and other partners initiated the “*Support My School*” (SMS) campaign in 2013.



The SMS project started in July 2014 with the aim of creating a healthy and active learning environment in schools and also assists young children to become agents of change in their communities. WASH facilities including sports and education facilities were improved in 20 selected schools in Lalitpur and Chitwan districts. The project also provided safe drinking water to the communities in four schools after the earthquake in April 2015. Altogether 8,203 students and 495 school staff are the direct beneficiaries of the project.

Urban Sustainable Sanitation and Hygiene for All (USSH4A)

Project Partner: SNV Nepal and Birendranagar Municipality
Project Area: Birendranagar Municipality
Project Duration: Jul 2013 to Dec 2014
Status: Completed

Funded by SNV Nepal, the USSH4A project focused on improving the health and quality of life through increased access to sustainable sanitation and hygiene in urban areas. ENPHO provided support to enhance the local capacity building. The project succeeded in declaring Ward No. 1 to 12 of Birendranagar Municipality as ODF zones. Also, the “Septic Tank Manual” was developed and school based BCC action plans were developed. Around 15,500 local people benefitted from the project.



Safe Water Supply, Sanitation and Better Access to Education

Project Partner: ASIA Onlus
Project Area: Deubhumi Baluwa VDC, Kavre
(Now Panchkhal Municipality, Ward No. 9, 10 and 11)
Project Duration: Jul 2009 to Jul 2014 (Extension upto Feb 2015)
Status: Completed

The major objective of the project was to improve access to safe drinking water and better sanitation and hygiene practices at the targeted community and to enhance education quality at selected schools.

The project has two components: (i) the WASH component in Deubhumi Baluwa VDC and (ii) the education component in 21 different schools in Deubhumi Baluwa, Panchkhal VDC and Dhulikhel Municipality. A water supply system with three productive boreholes, a drinking water treatment plant and pipeline were constructed. 428 toilets were constructed in Baluwa Ward No. 1, 2, 3, 4 and 9 and 314 in



Ward No. 5, 6, 7 and 8. 907 colloidal silver filters were distributed in the communities and 600 improved cooking stoves were constructed and installed. Altogether, 9800 people living in the VDC benefitted from the project.

Rainwater Harvesting Project

Project Partner:	RAIN Foundation, The Netherlands, Environment & Development Society (EDS)
Project Area:	Birendranagar Municipality, Neta VDC, Janajyoti Higher Secondary School
Project Duration:	Apr 2013 to Sep 2014
Status:	Completed

The major aim of this project was to demonstrate multiple uses of a rainwater harvesting system. The development of rain water harvesting system and 5-R demonstration system in the municipality was very effective in creating awareness and sensitizing a larger mass. Household level roof top rainwater harvesting with 2-R (retention and reuse) approach was promoted in Neta VDC, where the local people previously had to walk 3 hours to fetch water from the nearest stream. The rainwater harvesting system with ferro-cement collection tank was constructed with a soft loan from local microfinance institutions.



The integrated rain water harvesting system (sanitation and water reuse) at Janajyoti Higher Secondary School showcased the multiple use system (MUS). The students, studying for 18 months to become a Junior Technician in Agriculture (JTA), became the transfer agents of these technologies related to WASH and agriculture. Their knowledge will also come into use in their career. Altogether, 180 people of the Neta VDC benefitted directly from the project.

ODF and SWASTHA Community Declaration by ENPHO

- Ward-5 of Ghumkhahare VDC in Surkhet district was declared as an ODF zone under ENPHO's SWASH project. Altogether 65 households in the ward now have proper sanitation facilities. (October, 2014)
- Two clusters of Ward-6 of Gulariya Balapur VDC, Bardiya district was declared as an ODF zone under ENPHO's SAFA & SWASTHA project in coordination with various stakeholders and organizations. A total of 1181 households and 6257 people now have access to toilet facilities. (11th December, 2014 and 19th January, 2015 respectively)
- Ward-10 of Birendranagar Municipality has been declared as an ODF zone with the support of ENPHO and other organizations. All 807 households in the ward have constructed various forms of toilet facilities. (29th December, 2014)
- Pragatisil Tole of Birendranagar Municipality (BNM) was declared a SUSWASTHA Community with the support of ENPHO and Dutch Water Alliance. 53 households in the community have access to improved sanitation, solid waste management, smokeless kitchens and a drinking water purification option. (11th January, 2015)
- Ward-11 of Bardiya Municipality was declared as an ODF zone under the SAFA & SWASTHA project under ENPHO in coordination with various stakeholders and organizations, which benefitted 679 households with a population of 3789 (1946 male and 1843 female). (25th February, 2015)
- The Ghumkhare VDC of Surkhet District was declared as an ODF zone. ENPHO has facilitated more than 1000 households to attain and construct improved toilets and promote sustainable sanitation in the area. (27th February, 2015)
- Ward-10 and Ward-5 of Gulariya Municipality were declared as ODF zones under the SAFA & SWASTHA project of ENPHO in coordination with various stakeholders and organizations. A total of 1334 households are now progressing towards sustainable sanitation. (8th and 21st March, 2015 respectively)
- The former Latikoili VDC (which has been merged under the Birendranagar Municipality) was declared as an ODF zone with the support of ENPHO, which benefited more than 4800 households. (30th March, 2015)

Disaster Risk Reduction and Emergency WASH

A 7.8 magnitude earthquake struck Nepal on 25th April 2015 at 11:56 local time causing large scale human casualty and physical damage. Nearly 9,000 people died and 3 million people were displaced. According to the Ministry of Home Affairs (MoHA) more than 14 districts of Nepal were severely affected. To prevent further damage due to outbreaks of water borne diseases, those displaced required urgent access to safe drinking water, sanitation and hygiene facilities. The WASH cluster took immediate action and leadership to coordinate with sector stakeholders for a rapid WASH response. Sector stakeholders collaborated to implement emergency WASH response activities in earthquake affected districts. ENPHO took the lead in the large scale production of Piyush and in training and mobilizing youth volunteers for emergency WASH response activities. Agencies such as UNICEF, OXFAM, Newah Organization of Seattle (NOA), Plan Nepal, WaterAid Nepal, and CAWST/Rotary Club of Calgary provided immediate support to ENPHO to implement emergency WASH response activities in 11 of the 14 earthquake affected districts.

Humanitarian WASH Assistance in 7 Earthquake Affected Districts of Nepal

Project Partner:	UNICEF
Project Area:	Dolakha (Jhyaku, Jugu), Rasuwa (Timure, Chilime), Nuwakot (Thanapati, Suryamati), Makwanpur (Bajrabarahi, Palung, Daman, Gogane and Dandhakharka), Sindhuli (Kapilakot, Kalpabrikshya, Kamalamai and Dudhauri), Ramechhap (Tokarpur, Phulasi, Gothgaun and Sanghutar) and Kavrepalanchowk (Dewabhumi, Patalekhhet, Sankhupati, Sarada Batase and Dhulikhel Municipality)
Project Duration:	May 2015 to Sep 2015
Status:	Ongoing

ENPHO, with the financial support of UNICEF, actively helped earthquake victims in seven districts by providing WASH related facilities. The major aim of the project is to prevent possible outbreaks of water borne diseases by improving access to life saving WASH services in camps and settlements in the earthquake affected VDCs. A Ready to Install (RTI) toilet was designed for such emergency situations and promoted in the earthquake affected areas. Many other partner institutions used the innovation of the toilet design in their earthquake relief activities.



More than 3,800 toilets were constructed or repaired; 219 water supply schemes were repaired and constructed; 21,181 chlorine products (Piyush Plus and Aquatabs) were distributed; 20,265 AEM and 14,170 toilet kits and 16,875 hygiene kits were distributed; altogether 90 toilets and 18 water supply schemes were constructed in schools and health posts. 1979 water samples from 7 districts were tested for water quality. More than 500 local stakeholders and local youth groups were trained on emergency WASH.

Beneficiaries:

Components	Sub-Components	Beneficiaries (Pop.)
Water	Emergency water supply / Water supply scheme	63,200
	Distribution of Piyush Plus / Aqua tab	106,127
Sanitation	Construction / Rehabilitation of Toilet	48,700
	Distribution of AEM	96,000
	Distribution of toilet kit	72,000
Hygiene	Hygiene kit distribution	67,650
	Hygiene promotion activities	77,000
Institutional WASH	WASH in schools /Health centres	30,800

Earthquake Response to Nepal Earthquake 2015 in Affected Areas of Lalitpur and Bhaktapur Districts of Nepal

Project Partner:	OXFAM
Project Area:	3 Municipalities of Lalitpur (Godawari, Karyabinayak and Mahalaxmi), 3 Municipalities of Bhaktapur (Madhyapur Thimi, Mahamanjushree and Changunarayan)
Project Duration:	Jun 2015 to Oct 2015
Status:	Ongoing

After the devastating earthquake of 25th April 2015 and the following aftershocks, ENPHO in partnership with OXFAM implemented this project with the aim of contributing to the improvement in health conditions and providing increased access to appropriate improved shelter for earthquake victims in Lalitpur and Bhaktapur districts. ENPHO mobilized staff and volunteers for earthquake assessment and immediate response in Kathmandu valley two days after the mega earthquake. In close coordination with local authorities and stakeholders, ENPHO carried out various response activities including the distribution of hygiene kits, tarpaulin sheets and solar lamps and the installation of emergency latrines, semi-permanent latrines, water storage tanks, improved shelters, hand washing stations and bathing stations. Water was supplied in the areas through trucking bladder and tankers in coordination with Private Tanker Associations.



Strengthening Emergency Urban Water Supply System in Kathmandu Valley

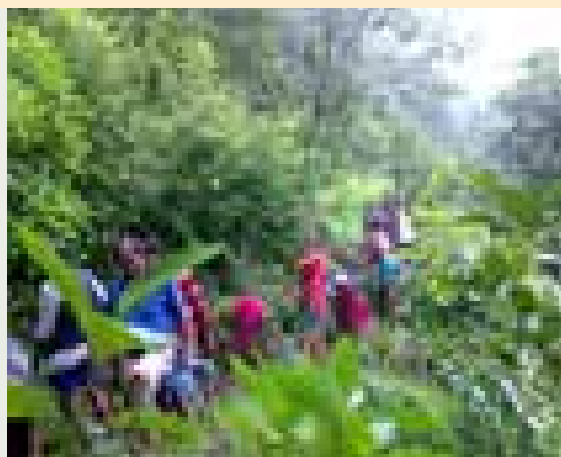
Project Partner:	OXFAM
Project Area:	Lalitpur Sub-Metropolitan City Ward 15
Project Duration:	Dec 2014 to Mar 2015
Status:	Completed

Kathmandu Upatyaka Khanepani Limited (KUKL)/Kathmandu Valley Water Management Board, a public limited company, is a major water supplier in Kathmandu valley with seven filling stations. This project was implemented to strengthen KUKL's emergency water supply system in Kathmandu valley. To ensure the proper operation of KUKL's water supply system during emergencies, the project supported the establishment of infrastructure which included the construction of walls, the installation of a 82.5 KVA generator and housing shed and the stockpiling of 100 L of diesel for the generator. These facilities were used extensively in the post-earthquake relief work.

Emergency Water, Sanitation and Hygiene Programme for Earthquake 2015 affected Populations of two VDCs of Nuwakot District

Project Partner:	Mercy Corps Nepal
Project Area:	Ganeshsthan and Sunkhani VDCs in Nuwakot district
Project Duration:	Jun 2015 to Jul 2015
Status:	Completed

Mercy Corps Nepal provided financial support for the project 'Emergency Water, Sanitation and Hygiene Programme' which aimed to provide adequate water, sanitation and hygiene services and reduce public health risks for approximately 4,500 earthquake affected people (1800 households) in Ganeshsthan and Sunkhani VDCs of Nuwakot district.



A total of 273 toilets were constructed and repaired benefitting 4,419 people, 12 water supply systems were repaired benefitting 1,648 people and 1300 litres of EM solution was distributed benefitting 9,293 people. Altogether 27 WASH awareness programs were conducted by trained WASH volunteers and social mobilizers along with the distribution of a wide variety of IEC materials on WASH. 59 water samples were also tested for water quality.

Enhancing the Health Sector Crisis Preparedness in the Event of a High Intensity Earthquake in Kathmandu Valley

Project Partner:	OXFAM
Project Area:	11 Health Institutions: Patan Hospital, Imadol Health Post, Siddhipur-Sub Health Post, Lubhu Primary Health Care Centre, Bhaktapur Hospital, Jhaukhel Health Post, Duwakot Health Post, Changunarayan Primary Health Care Centre, Syuchatar Health Post, Ichangu Narayan Health Post, Bishnudevi Primary Health Care Centre
Project Duration:	Jun 2013 to Aug 2014
Status:	Completed

This project was implemented to enhance the capacity of the Ministry of Health and Population (MOHP), health facilities and communities surrounding the targeted health facilities to respond effectively to a major disaster i.e. an earthquake. The project enhanced the structural and non-structural capacity of WASH facilities within Kathmandu Valley with the aim of minimising mass casualties in emergencies.



The project succeeded in pre-positioning Emergency WASH materials in 11 health facilities, developing Emergency WASH plans for the 11 health facilities and developing Emergency WASH training over three days. 256 participants and 252 staff from 11 health facilities were trained on Emergency WASH. An Emergency WASH vulnerability and functional capacity assessment was carried out in two hospitals, three PHCCs, five HPs and one SHP. DEWATS was constructed at Syuchatar Health Post and at Bishnudevi Primary Health Care Centre, Kirtipur.

Urban WASH Preparedness and Community Based Disaster Risk Reduction in Kathmandu

Project Partner:	OXFAM
Project Area:	Lalitpur Sub Metropolitan City Ward 5, 14, 15, 17, 19 and Imadol VDC-Ward 6, Dhapakhel VDC-Ward 1
Project Duration:	Jun 2012 to Apr 2015
Status:	Completed

The main objective of this project was to reduce loss of life and human suffering following a major earthquake in Nepal. Disaster Management Committees (DMCs) were established to

oversee the implementation of project activities in the communities with the ward secretary taking the lead. Different task groups were formed to further strengthen the DMC.

WASH facilities were improved or constructed in five government and four private schools and seven open community areas. Emergency rescue, first aid, WASH and maintenance tools were stockpiled in seven project wards along with the construction of a shed to store emergency materials. WASH materials were also stockpiled in 14 schools along with the implementation of emergency evacuation routes. GIS based VCA and hazard maps were developed for the seven project wards. A disaster management plan was developed and ENPHO provided key support for implementing the planned activities. Disaster Information Centres were established in the seven project wards. Similarly, VCA and DRM plans were developed for 30 schools. Through this project, the ward secretaries were trained on DRR and Humanitarian Response and 2694 volunteers were trained on various topics including basic first aid, light search and rescue, damage and need assessment and concepts on water, sanitation and hygiene.



Earthquake Response at Bhaktapur and Kathmandu

Project Partner:	Water Aid Nepal, UN-HABITAT
Project Area:	Nagarkot VDC (Ward No. 11, 12, 13 of newly formed Mahamanjushree Municipality); Bhaktapur Camps; Madhyapur Camps; Jhaukhel VDC (Ward 5, 6, 7 of newly formed Changunarayan Municipality); Gundu VDC of Bhaktapur; Suntole VDC (Ward No. : 6, 7 and 8 of newly formed Shankharapur Municipality), Kathmandu, Panauti Municipality (Kavre)
Project Duration:	May 2015 to Jul 2015
Status:	Completed

Bhaktapur is one of the earthquake affected districts. Official records show that 24,179 houses were totally damaged and over 15,000 houses were partially damaged. Under this project, ENPHO constructed 50 semi-permanent toilets in 18 camps and the communities of Bhaktapur, Madhyapur Thimi and Mahamanjushree Municipality. 25 water tanks were installed in 18 communities and 62



toilet kits were distributed in 18 camps and communities. 5,694 hygiene kits were distributed in camps and the communities of Bhaktapur and Kathmandu. Further support included the distribution of 14 life straw filters in camps, schools and health institutions, the provision of 90 mini filters in Nagarkot and the mobilization of WASH volunteers for hygiene promotion in different camps and communities.

Humanitarian Situation and Response Overview in Sindhupalchowk

Project Partner:	Plan International
Project Area:	11 earthquake affected VDCs in Sindhupalchowk
Project Duration:	May 2015 to Aug 2015
Status:	Completed

Sindhupalchowk district is one of the most earthquake affected districts in Nepal. ENPHO collaborated with Plan International to provide immediate WASH services, particularly for hygiene promotion and behaviour change campaigns (BCC) in 11 VDCs in the district. Several activities were carried out such as hygiene kit distribution, door to door campaigns, mass awareness campaigns and capacity building of local stakeholders on Emergency WASH. More than 12,000 hygiene and water kits were distributed and more than 8,000 people received WASH orientation.



Environmental Studies

Assessment of Performance of Kanchan Arsenic Filter (KAF) in Nawalparasi

Project Partner: JICA, DWSS
 Project Area: Nawalparasi
 Project Duration: Jul 2014 to Jan 2015 (Extended till Nov 2015)
 Status: Ongoing

Kanchan Arsenic Filter (KAF) was developed by MIT and ENPHO in 2003. Since then thousands of KAFs have been installed in arsenic affected areas including Nawalparasi district by various agencies. The study performed by ENPHO and MIT in 2005 showed that 83% of KAFs are in regular use even after one year of operation and more than 90% users perceived KAF as a good filter. Since then, no comprehensive study on efficiency and sustainability of KAFs had been performed. In July 2014, ENPHO conducted a study, through a survey covering 2,833 households to assess the current status and use of KAFs and to identify issues associated with O & M of KAFs in Nawalparasi.



Evaluation of 12 Ceramic Filter Production Sites and their Marketing Strategy

Project Partner: EAWAG
 Project Area: 14 ceramic filter production sites in Nepal
 Project Duration: Sep 2014 to Feb 2015
 Status: Completed

Ceramic filters are one of numerous point-of-use (PoU) water treatment options widely promoted in Nepal. The improved version of ceramic filter – Colloidal Silver Filter (CSF) is very effective in removing pathogens from drinking water. Several agencies such as

IDE Nepal, SAPROS Nepal and local entrepreneur Hari Govinda Prajapati have trained approximately 19 different local potters to produce ceramic filters in Nepal. Developing the skills of local filter producers will strengthen the supply chain at local level. However, little is known about local filter production sites. Hence, ENPHO in collaboration with EAWAG conducted a study to assess the current status of ceramic filter production in Nepal and determine the key issues related to the sustainable production of the filters.

Assessment of 'Faecal Sludge Management (FSM) in Small Towns' Strategy

Project Partner: USAID Nepal and 500B Solutions Pvt. Ltd.
Project Area: 9 small towns in Nepal
Project Duration: Sep 2014 to Feb 2015

Global efforts to achieve the Millennium Development Goal (MDG) target on water and sanitation by 2015 led to a substantial increase in the installation of traditional on-site sanitation plants such as pit latrines, cesspits or septic tanks. This has consequently generated additional demand for proper faecal sludge management (FSM) services in many developing countries including Nepal. Unfortunately, current practices on FSM only consider the emptying of on-site systems and disposing of collected faecal sludge (FS) into the environment with minimal, if any, treatment. Thousands of on-site septic pits have been constructed and hundreds of thousands more are being planned without clear guidance for collection, treatment, disposal or re-use of FS. Without proper containment and management systems, FS constitutes a major health hazard and can lead to epidemics. Understanding the status and need of FSM in rural and small town areas is urgent.



As a part of its sustainable sanitation programme USAID collaborated with ENPHO in a study on "Faecal Sludge Management in Small Towns". A consolidated study report was produced including key findings and strategic recommendations on potential areas of work on FS and its management in selected small towns of Nepal.

Research and Development

The Research and Development Laboratory (R & D Lab) unit of ENPHO has been providing its services since 1990. The major objective of ENPHO's Laboratory is to conduct environmental quality testing for scientific research and monitoring activities for education and advocacy purposes. This laboratory is accredited by a government body, Nepal Bureau of Standard and Metrology, under ISO 17025 and provides services for testing water, air, soil and food quality.

ENPHO's Laboratory is well equipped with instruments such as an Atomic Absorption Spectrophotometer (AAS), an Ultra Violet (UV) spectrophotometer, a Double Distillation Unit, four digital electronic balances, a pH meter, electrical conductivity meters, automatic digestion and distillation units and various types of ovens and furnaces for physical and chemical analysis. It also has several filtration units (Millipore and Del Agua units), a range of incubators, autoclaves and refrigerators for microbiological analysis.

Besides analysis, this unit of ENPHO has developed various types of water testing kits and water purifying kits like the Water Quality Field test kit, Arsenic test kit, Free Residual Chlorine (FRC) kit, Coliform Presence/Absence (P/A) Vial and chlorination solutions like Piyush and Piyush Plus.

During the FY 2014/15, 2703 samples were analyzed on drinking water, 188 on wastewater, 1 on soil and 15 on urine, food and feed.



Capacity Building

ENPHO designs and delivers professional training programmes along with innovative tools for capacity building at community and organizational levels. The programmes are designed for enhancing professionals' and decision makers' ability to bring about change through the effective delivery of services at local and national level.

ENPHO Water Expertise and Training Centre (ENPHO WET-Centre)

The fundamental intention of this centre is to build the capacity of WASH implementing agencies to effectively deliver WASH practices and skills to communities and households. ENPHO's WET-Centre, with experienced trainers and specific training manuals, is recognized as a key training centre by WASH implementers. The centre carries out four major activities;

- The development of appropriate training packages based on needs assessment of implementing agencies;
- The provision of consulting support to training participants and new organizations on WASH issues;
- Action research to address practical problems encountered in WASH projects; and
- WASH awareness activities targeting WASH implementers.

During the FY 2014/15, a total of 77 training schemes were conducted. This included seven trainings on Household Water Treatment and Safe Storage (HWTS), 17 on Bio-sand Filter (BSF) Construction, one on Low Cost Sanitation (LCS), 10 on Community Health Promotion (CHP),



three on Effective Facilitation Skills (EFST and DEWT), three on Water Quality Testing (WQT) and 36 other trainings on Emergency WASH, Sensitization Tools of Total Sanitation (STTS) and Behaviour Change.

The WET-Centre also developed complete packages on CHP, HWTS, STTS, E-WASH and an introduction to WASH as required in the local context. Altogether, 84 technical support visits were made to support the trained participants.

Organizational Development

ENPHO promotes capacity enhancement of staff and motivates their participation in both national and international events. As a part of human resource development, some staff members are pursuing higher studies. A number of national and international students, interns and volunteers worked on ENPHO projects to develop their knowledge and skills.

The draft on Employment Service Rules (Human Resource Policy), prepared by a consulting firm, will be finalized in the near future. There are plans to activate an HR unit at ENPHO with staff dedicated to human resource management.

Knowledge Management and Advocacy

Knowledge based education and advocacy campaigns are core activities that are handled by the Resource Centre (RC). RC collects, stores and disseminates information and uses them to conduct education and advocacy campaigns on environment and public health.

ENPHO's website is being continuously updated with the objective of providing information on WASH and other current work. During the earthquake response period, a separate section on *Earthquake Response 2015* was created in order to inform the public about the emergency response activities conducted by ENPHO in 11 of the earthquake affected districts. This section provided information, daily updates and news of on-going response activities and WASH news.

The RC collected, produced and disseminated various IEC materials on different programs and projects. With the support of various partners, ENPHO produced and distributed IEC materials on WASH during the earthquake response period. These materials proved very useful and informative in raising awareness on WASH and preventing the possible outbreak of water-borne diseases in the earthquake affected areas. Through ENPHO's monthly E-Bulletin, the RC publishes updated information about ENPHO activities to the general public.



The RC also manages the ENPHO library that houses books, reports, journals and research documents related to environment and WASH. The centre also facilitates staff, students, scholars and general public who visit the library for study and general information. ENPHO's meeting hall, with a seating capacity for 50 people, is regularly used for trainings, meetings, and workshops by ENPHO projects and partner institutions. The hall is well equipped with projector and sound systems.

The RC actively participated in advocacy campaigns related to celebration days such as World Water Day, World Environment Day and National Environment and Sanitation Week. ENPHO also participated in various events, exhibitions and campaigns to disseminate and share WASH activities through different projects.

The *Paschim Paaila*, a youth volunteer group initiated by ENPHO, organized six regular interaction programs through their “WASH Forum” linked to water, sanitation and hygiene, disasters and epidemics and other various health and environmental issues for knowledge sharing and advocacy. The forum tries to address the voices of diversified youth communities.



ENPHO has been working closely with relevant stakeholders to coordinate and implement joint activities and research and academic studies related to safe water, sustainable sanitation, health and hygiene promotion and other environmental issues. ENPHO is a member organization in the following civil society and technical forums;

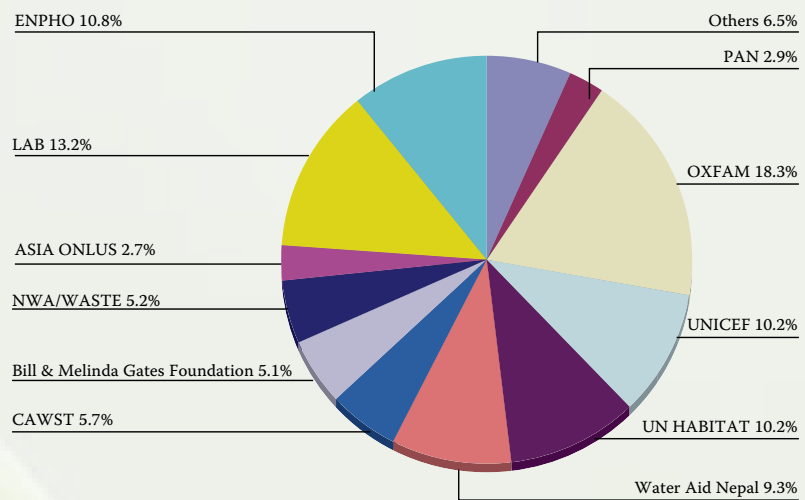
- Consortium for DEWATS dissemination (CDD)
- NGO Forum for Kathmandu Valley Water Supply and Sanitation
- Coalition for Clean Environment (CCE)
- Drinking Water Quality for NBSM
- Environmental quality and lab issues for NBSM
- National Drinking Water Quality Standard
- Small Town Water Supply & Sanitation Project, DWSS
- District WASH Coordination Committee - Bhaktapur
- Resource Centre Network Nepal (RCNN)
- National WASH Cluster
- Nepal Water Alliance
- Sustainable Sanitation Alliance (SuSanA)
- Accelerating City to City Exchange on Sustainable Sanitation (ACCESSanitation)

Financial Management

Income

ENPHO's total income for the year 2014/15 was NRs. 162,468,997.44 (US\$ 1,606,377.27, conversion 1 USD = NRs. 101.14), a 46.5% increase over 2013/14 income. Donor contributions include OXFAM GB Nepal: 18.3%, UN-HABITAT: 10.2%, UNICEF: 10.2% and WaterAid Nepal: 9.3%. Of the total income, 13.2% came from ENPHO

Income sources during FY 2014/15

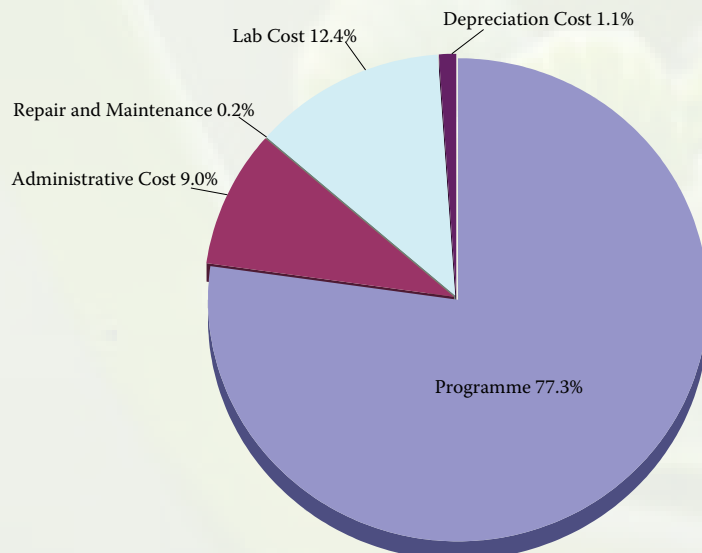


Research Laboratory projects, services and PIYUSH sales. The overall distribution of annual income is presented in the pie chart.

Expenditure

The total expenditure for the year 2014/15 was NRs. 161,957,323.64 (US\$ 1,601,318.21, conversion 1 USD = NRs. 101.14). This is a 46.5% increase over 2013/14 expenses. Of the total expenditure, 77.3% was spent on programmes, while 9.0% was spent on administration. The expenses of ENPHO Research Laboratory services and PIYUSH production was 12.4% of the total expenditure. The overall distribution of annual expenditure is presented in the graph.

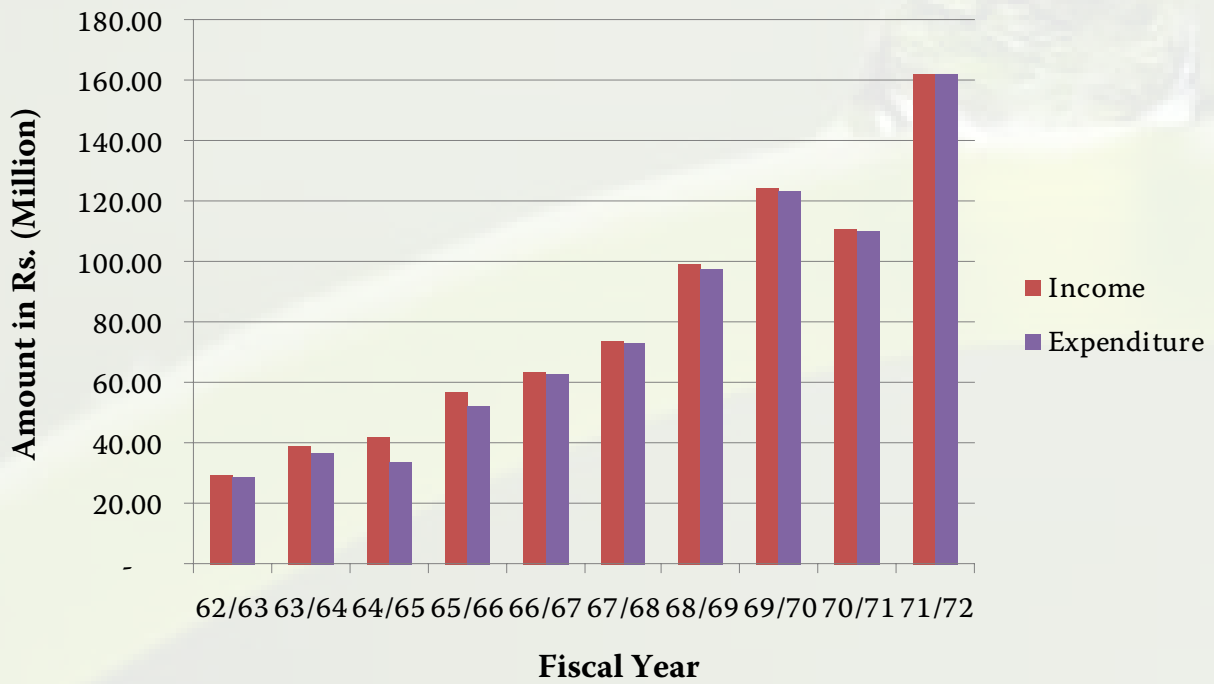
Expenses in FY 2014/15



Trend in Income and Expenditure over the Past 10 Years

Details of the trend in income and expenditure over the past 10 years is detailed in the following graph.

**Income Vs Expenditure Comparison
Over Past 10 Fiscal Years**



Financial Audit Report

S. Dahal & Associates
Chartered Accountants

Chartered Accountants' Association
House No. 101, First Floor, Moh. 101/102/103
P.O. Box No. 2222, Kathmandu
| Email: sdahal@sa.org.np | www.sda.org.np
| Phone: 977-1-42551111

Independent Auditor's Report

to

Financial Statements of Environment and Public Health Organization (ENPHO)

We have audited the accompanying financial statements of Environment and Public Health Organization (ENPHO) as at 31st March 2012. The financial statements are the responsibility of the management of ENPHO. Our responsibility is to express an opinion on these statements based on our audit.

We conducted our audit of the financial statements in accordance with generally accepted standards and appropriate auditing standards. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from any material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, and to the best of our information and explanation given to us, the financial statements referred to above read with and subject to the notes thereto and accompanying memorandum of Association, present fairly, in all material aspects, the assets and liabilities balance as at March 31, 2012 and the fund received and expenditures incurred during the period then ended.

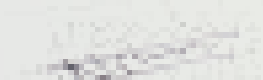

S. Dahal, P.A.
S. Dahal & Associates
Chartered Accountants

Date: 11/05/2012
Place: Kathmandu, Nepal

Environment and Public Health Organization
Nam Bannasom, Kathmandu
Balance Sheet
As on 31 March 2015
As on 18 July 2015

Particulars	Schedule	Amount 2015/15	Amount 2014/14
A. Sources of Fund			
Capital Fund Balance		1,076,081.90	1,076,081.90
Reservation Surplus Fund		9,158,717.12	9,158,717.12
Surplus Fund	1	19,887,729.97	19,379,258.11
Total Sources of Fund		20,122,528.99	19,614,057.13
Applications of Fund			
B. Fixed Assets			
	2	11,707,307.99	11,802,594.79
C. Current Assets, Loans & Advances			
Program Advance and receivables	3	1,076,920.72	9,029,949.08
Other advance and Deposit	4	9,838,882.96	5,139,229.10
Project Advances/Receivables of Other program	5	11,318,888.18	10,504,341.80
Cash & Bank balance of Project Accounts	6	42,787,648.89	19,909,329.78
Cash & Bank Balance of (ENPHO)	7	9,890,900.15	12,989,121.72
		85,891,237.89	67,561,971.58
D. Less: Current Liabilities & Provisions			
Liabilities to on going Other Programs	8	46,310,800.80	21,179,229.58
Sundry Creditors	9	12,188,790.72	7,888,242.89
Liabilities to on going Programs of Donors (Fund)	10	5,225,279.87	8,579,691.88
		63,724,871.39	37,647,164.35
E. Working Capital (C-D)			
		19,419,216.80	19,891,509.80
Total Application of Fund (B+E)		21,126,524.79	20,804,804.59

Notes to Accounts
Schedule 1 to 21 form an integral part of this statement


Manager/President
Admin. & Finance Manager


Dr. Laxmigh Joshi
Executive Director

As per our report of audit date


Pratap K. Acharya
Treasurer


Mr. Urmil Joshi
Chairman

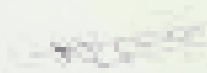

CA. Sushil Gupta P.C.A.
S. Dhawal & Associates
Chartered Accountants

Date: 12 March, 2015
Place: Kathmandu, Nepal

Environment and Public Health Organization
Non-Banking Financial Institution
Income Statement
for the Year ended 31 March 2021
for the Year ended 30 July 2019

Particulars	Schedule	Amount 2021/22	Amount 2019/20
Income			
Remittances from Donors	11	5,350,000.00	4,308,330.00
Remittances from other (Project) Activities	12	120,208,340.00	79,800,141.44
Income from Activities	13	55,754,000.00	29,308,501.41
Income from Other Activities	14	85,400.00	213,710.29
		181,498,000.00	113,649,884.14
Expenditure			
Program Cost	15	4,821,810.00	3,549,700.00
Program cost of Other, Project activities	16	120,263,150.00	79,800,800.00
Institutional / Administrative Cost	17	14,810,700.00	10,770,300.00
Repair & Maintenance	18	379,814.00	300,000.00
Cost activity deposits	19	10,001,411.00	8,400,000.00
Expenditure incurred to projects	20	100,000.00	1,100,000.00
Contingency	21	1,734,100.00	1,700,000.00
		161,467,325.00	115,820,100.00
Excess of income over Expenditure		20,030,675.00	-1,170,215.86


Schedule 10 of 11 form an integral part of this statement.


 Rajeev Pradhan
 Head & Finance Manager


 Dr. Laxman Joshi
 Executive Director

As per our report of audit dated


 Pratik K. Acharya
 Treasurer


 Mr. Anandkumar
 Chartered Accountant


 CA. Gupta
 B. Chartered Accountant

Date: 12 March 2021
 Place: Raichamba, Nepal

Table 1: Summary of Environmental Indicators

Indicator	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Population (Millions)	10.5	10.8	11.1	11.4	11.7	12.0	12.3	12.6	12.9	13.2	13.5
GDP (Billion USD)	150	165	180	195	210	225	240	255	270	285	300
CO2 Emissions (Million Tons)	100	110	120	130	140	150	160	170	180	190	200
Water Consumption (Billion Liters)	50	55	60	65	70	75	80	85	90	95	100
Waste Generation (Million Tons)	20	22	24	26	28	30	32	34	36	38	40
Renewable Energy (%)	15	16	17	18	19	20	21	22	23	24	25
Air Quality Index (AQI)	100	105	110	115	120	125	130	135	140	145	150
Water Quality Index (WQI)	80	82	84	86	88	90	92	94	96	98	100
Soil Health Index (SHI)	70	72	74	76	78	80	82	84	86	88	90
Biodiversity Index (BI)	60	62	64	66	68	70	72	74	76	78	80
Forest Cover (%)	25	24	23	22	21	20	19	18	17	16	15
Urbanization (%)	45	48	51	54	57	60	63	66	69	72	75
Climate Change (Celsius)	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5
Sea Level Rise (cm)	10	12	14	16	18	20	22	24	26	28	30
Disaster Frequency	5	6	7	8	9	10	11	12	13	14	15
Healthcare Expenditure (%)	10	11	12	13	14	15	16	17	18	19	20
Education Expenditure (%)	8	9	10	11	12	13	14	15	16	17	18
Employment Rate (%)	60	62	64	66	68	70	72	74	76	78	80
Life Expectancy (Years)	70	72	74	76	78	80	82	84	86	88	90
Human Development Index (HDI)	0.6	0.65	0.7	0.75	0.8	0.85	0.9	0.95	1.0	1.05	1.1



The Way Ahead

The year of 2014-15 has been phenomenal for us all. It was a critical, challenging yet rewarding year for ENPHO. Reflecting on the post-earthquake activities, we realize the huge potential of ENPHO as a professional specialist organization. So far we have had highly productive partnerships and collaboration at all levels. This gives us much needed confidence and opportunity to look ahead for a brighter future.

We have had some staff departures and new arrivals. As usual it is sad to see our colleagues leave. But we should not forget two positive aspects that this brings. Foremost, staff moving out to other institutions expands our network. We have excellent links with institutions where our former colleagues are now based. Second, the change also opens space for new and young talent to come in. ENPHO has to remain dynamic and accept both challenges and opportunities.

ENPHO is portrayed as a science-based organization. We therefore have to strengthen our science, continue to innovate and develop sustainable solutions, adapt them for local use and demonstrate and promote the use of these solutions through capacity building activities at all levels. ENPHO activities need to remain relevant, credible and legitimate and we must work closely with government agencies, partners, donors and communities. We are contributing to the national target of providing safe drinking water and sanitation to all by 2017.

Documentation of our work and publications in journals and other media must be encouraged. We wish to see ENPHO as the 'go-to' source of knowledge for water quality, innovative WASH technologies, sustainable sanitation and water-related disaster risk reduction. More efforts could go into emerging issues such as DRR and climate change. We strive to become a national centre of excellence for capacity building at different levels. The concept of the Environment and Public Health Institute (ENPHI) has to be translated into concrete action.

Our donors have generously provided financial support for our work, however opportunities to expand our funding base must be considered. There is great opportunity for ENPHO to tap into competitive bidding for research and development projects; we have the necessary resources, namely experience, dedicated staff, legitimacy, partnership and network.

We have a number of important tasks to complete in the coming year. With the new strategic plan on the horizon, internal structure and staff placement should be aligned accordingly. The draft Employment Services Rules (HR policy) will be finalized and internal co-ordination and co-operation should be strengthened in project development, implementation, documentation and publications. We all have to work hard to develop the ENPHO image as a dynamic and integrated yet effective and professional institution.

This year we shall complete 25 years of our ENPHO journey. We look forward to celebrating this with all our supporters, well-wishers and partners.

Partners

- Alliance for Sustainable Development
- American Embassy
- Asia Arsenic Network
- Asian Development Bank
- Australian Youth Ambassadors for Development
- Bharatpur Municipality
- Bremen Overseas Research and Development Association, Germany
- Butwal Municipality
- Centre for Affordable Water and Sanitation Technology, Canada
- Centre for Integrated Urban Development
- Central Horticulture Centre
- CREEW, Baluwatar
- Clean Energy Nepal
- Consortium of DEWATS Dissemination Society, India
- Department for International Development
- Department of Water Supply and Sewerage
- Dhulikhel Municipality
- DISVI International, Italy
- Dubai Expo 2020
- Dutch WASH Alliance
- Eco Himal, the Society for Cooperation Alps – Himalaya
- European Commission
- Give2Asia
- Gulariya Municipality
- IRC International Water and Sanitation Centre, The Netherlands
- Japan International Cooperation Agency
- Japan World Water Forum
- Kathmandu Metropolitan City
- Kathmandu University
- Kathmandu Upatyaka Khanepani Limited
- Kirtipur Municipality
- Lalitpur Sub-Metropolitan City
- LUMANTI Support Group for Shelter
- Madhyapur Thimi Municipality
- Massachusetts Institute of Technology, USA
- Mercy Corps Nepal
- Ministry of Urban Development
- Nepal Bureau of Standards & Meteorology
- Nepal Engineering College
- Nepal Red Cross Society
- Nepal WASH Alliance
- NGO Forum for Urban Water & Sanitation
- Non Residential Nepali-Canada
- One Planet Solution Pvt. Ltd.
- Oxfam GB Nepal
- Plan Nepal

- Practical Action Nepal
- Pure Water's: International Water Purification Program Switzerland , Zurich
- Rain water harvesting implementation Network Foundation, the Netherlands
- Rotary International
- RUAF Foundation, the Netherland
- Rural Village Water Resource Management Program – FINNIDA
- Rural Water Supply and Sanitation Fund Development Board
- Rural Water Supply Sanitation Project- Western Nepal, Pokhara
- School of Environmental Management and Sciences
- Siddhipur Village Development Committee
- SNV Nepal
- Social Welfare Council
- Society for Urban Poor
- SOMNEED Nepal
- Stockholm Environment Institute, Sweden
- Sustainable Sanitation Alliance
- Swiss Federal Institute for Environment Science and Technology , Switzerland
- The Asia Foundation
- The Association for International Solidarity in Asia (ASIA-Onlus)
- The Bill & Melinda Gates Foundation
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- University of Kyushu, Japan
- University of Yamanasi, Japan
- Urban Environment Management Society
- WASTE, The Netherlands
- Water Aid Nepal
- Water, Sanitation and Hygiene - Resource Centre Network Nepal
- World Bank
- World Health Organization



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