Building up Healthier Communities in Karnali
An Insight into Water, Sanitation & Hygiene Programme in Karnali

Mission East (ME) is a Danish international non-governmental relief and development organization founded in 1991. It is responding development needs and emergency situation of marginal and crisis affected communities in six countries of Eastern Europe and Asia.

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Karnali Integrated Rural Development and Research Centre (KIRDARC) Nepal, an NGO, has been in operation in Karnali region since 1999 with a mission to enable Karnali people to claim and exercise their rights for poverty reduction and improved livelihoods through their organization, research, policy advocacy and judicious resources mobilization.

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Since the inception of Mission East WASH activities in 2008, access to clean water and better hygiene practices has significantly improved in the 13 target VDCs of Humla, Kalikot and Mugu. The creation of 35 Water User Groups and the lasting presence of our implementing partner KIRDARC in Karnali, in many development sectors and coordination platforms at district level, will guarantee sustainable access to water for the concerned communities.

But new challenges are ahead. The remoteness and absence of transportation possibilities will make the maintenance costly and force us to keep exploring low-cost local solutions such as the non cement water supply systems. The social aspect is also to be better addressed, as marginalized groups remain excluded from decision-making processes, and access to clean water is still often under the control of the wealthier members of the community. Better governance via regular public audits and actions to make decision-makers more accountable are necessary. Hygiene practice is still to be improved but is closely connected to education and literacy. Finally, the frequent hazard occurrences in Karnali such as landslides and rock falls result in significant damages to water schemes and hygiene facilities and require better mainstreaming of risk reduction to mitigate the heavy maintenance and repair, whereas long term impact of climate change on water availability requires that we dedicate time and effort right now to adapt to it.

After 4 years working closely with the population of Karnali together with KIRDARC to improve hygiene practices and access to clean water among many other programs, Mission East remains dedicated to tackle, together with local communities, the problems that lay ahead to improve the livelihood conditions of its population and contribute in reaching the objectives of the Millennium Development Goals.

Christophe Belperron  
Country Representative  
Mission East Nepal

People in Karnali are deprived of adequate access to safe water, improved sanitation and hygiene services. In 2008 only 43.68 % of the population had access to water while 23.42 % of the population had access to sanitation facilities. Most services (water supply and sanitation infrastructure) are not functional and not serving their purpose. In order to contribute to improve the water, sanitation and hygiene situation in Humla, Mugu and Kalikot, KIRDARC together with Mission East started intervention in remote villages of Karnali. The WASH intervention significantly contributed to improve the situation in target VDCs.

Due to geographical remoteness and lack of access to markets locally, the traditional way of promoting WASH in Karnali is difficult. Hence together with Mission East, KIRDARC has piloted different innovative approaches of addressing WASH issues ranging from using non-cement structures for water supply services to promoting local made improved cooking stoves for reducing smoke inside the house.

KIRDARC has been supporting local communities and Water Sanitation User Committees to be organized and to modify their traditional hygiene related malpractices. It has been supporting the local government institutions and mechanisms to operationalize the District Sanitation Strategy Plan. However, there is still scope of improving WASH governance to address the gap of coordination among WASH stakeholders and government mechanisms to address the issues related to sustainability of such services.

Importantly, the frequent but localized climate induced hazards such as landslides, rock falls and, the drying out of sources are causing the non-functionality of water supply systems. Hence, KIRDARC will focus on such issues in future WASH interventions as multi-stakeholder process.

Last but not the least, KIRDARC would like to thank for the joint efforts of all stakeholders and Mission East for technical support in this regard.

Min B. Shahi  
Executive Director  
KIRDARC Nepal

Foreword
An Insight into Water, Sanitation & Hygiene Programmes of Mission East & KIRDARC in Karnali
Mission East (ME) is a Danish international non-governmental relief and development organization founded in 1991. It has been responding to development needs and emergency situations of marginalized and crisis affected communities in eight countries of Eastern Europe and Asia.

Mission East is committed to:
- empowering marginalized people and communities in crisis affected countries to lift themselves out of poverty
- helping the vulnerable through humanitarian relief aid and development assistance
- linking relief, rehabilitation and development and supporting communities’ capacities to organize and assist themselves

Mission East’s ‘Values in Action’ are: honesty, integrity, compassion, valuing the individual, respect for all people.

Mission East Nepal Programme

In 2006, following a decade long armed conflict in Nepal, Mission East decided to support a large operation focusing on the conflict affected population of the Karnali Zone, the most remote area of the country. Accordingly, ME signed General Agreement (principal approval from the Government of Nepal for in-country operation) with the Social Welfare Council (SWC) and a five year ‘Karnali Support Programme (2007 to 2012)’.

The major interventions of the program in Water, Sanitation and Hygiene (WASH) sector is "Provision of clean Water, Sanitation and Hygiene promotion to address lack of safe drinking water, poor sanitation and hygiene in Karnali zone and high incidence of water and excreta related diseases."

Mission East has implemented WASH interventions through the local partner Karnali Integrated Rural Development and Research Center (KIRDARC) Nepal in 3 districts of Karnali i.e. Humla, Mugu and Kalikot from 2008-2012 aiming at sustainable water supply, improved sanitation, hygiene and health targeting the vulnerable population.

KIRDARC Nepal

Karnali Integrated Rural Development and Research Centre (KIRDARC) Nepal, an NGO, has been in operation in the Karnali Zone since 1999 with a mission to enable the population of Karnali to claim and exercise its rights for poverty reduction and improved livelihoods through its organization, research, policy advocacy and judicious resources mobilization. It is registered at District Administration Office, Jumla under the Organization Registration Act, 1978, and affiliated to the Social Welfare Council in Kathmandu. It has coordination office in Kathmandu, Programme Support Office in Nepalgunj and district offices in Jumla, Humla, Mugu, Dolpa, Kalikot and Surkhet. In Banke, it has been working in collaboration with the Regional Human Rights Network to monitor, document and report on human rights status of the region.

To achieve the goal envisioned, currently KIRDARC is working in line with its five year strategic operation plan (2009-13) with the following six strategic outputs:

- Human rights situation in Karnali region monitored, documented and disseminated
- Access to quality school education promoted, and youths empowered and engaged as catalysts for social transformation
- Advocacy and campaigns launched at all levels to establish economic, social and cultural rights as fundamental entitlements, and to promote people’s access to basic services, such as safe drinking water, health, sanitation, employment and livelihood opportunities, as their human rights in order to improve the overall condition of the people of Karnali
- Community institutions and groups strengthened to promote democratic practices at the local level
- Plural media (print and electronic) strengthened and mobilized to secure freedom of expression and promote right to information
- Communities and local level institutions strengthened to enhance resilience of communities to natural disasters and climate change impacts

KIRDARC has been working in education, human rights, food security, livelihood, income generation, community empowerment, WASH, DRR & CCA, media and advocacy having active engagement of community groups, local NGOs with government institutions, community institutions and civil society organizations.

Water, Sanitation and Hygiene is one of the focus thematic areas of KIRDARC supported by Mission East and other funding partners such as SNV and Care Nepal. Under WASH, KIRDARC has been contributing and facilitating the operation of District Sanitation Strategy Plan of the local government.
The Context

Building up Healthier Communities in Karnali

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According to the target of the Government of Nepal, all people will have access to safe water and sanitation facilities by 2017. Similarly Nepal has to achieve at least 53% sanitation coverage to meet the sanitation Millennium Development Goals (MDG). According to surveys of the Central Bureau of Statistics (CBS 2003/04), nearly 80% of the rural population has access to an improved water source and 30% of the rural population has access to improved sanitation. However, in the mid and far west regions only about 43% of the total population have access to tap drinking water systems, while sanitation facilities are nearly non-existent. Studies have shown that the figures might be only coverage irrespective of functionality, accessibility and water quality criteria.

There has been an increase in toilet coverage in the country from 6% of the population in 1990 to 43% in 2009. The annual growth rate of sanitation increment thus stands at 1.9% over the years. The toilet coverage in urban areas is 78% against the rural coverage of only 37%. It proves that there is big disparity between urban and rural sanitation, although urban areas have other urban specific problems of solid and liquid waste. Interestingly, urban toilet coverage has stagnated at around 80% since 2000. The trend analysis shows that if the present trend is continued, the toilet coverage will be only 80% against the national target of total coverage by 2017.

Department of Water Supply and Sewerage (DWSS, 2009) records also show that the sanitation coverage in hill region is 52.0%, whereas in the Terai it is 35.3% and in the mountains it is 42.3% of the respective region's population. The studies of the Department of Education and UNICEF show that 61.9% of schools in Nepal have at least one toilet facility with 35.9% providing a separate toilet for girls and 30.2% having a separate facility for teachers. Lack of gender segregated toilets in schools has resulted in a higher drop-out rate among girls during their puberty. According to the study of UK DFID, 11 percent more girls attend school when a gender friendly sanitation service is available.

The specific objectives outlined by the policy are:

- Provide clean, safe & adequate quantity of water (Focus on disadvantaged and backward communities)
- Reduce incidences of water related communicable diseases
- Utilize time saved in fetching water by women and children to productive works
- Implementation of plans & programmes to increase access
- Use of feasible technological options
- Improving water quality manageable by communities
- Institutional arrangements suitable for backstopping
- Legal Framework improvement to establish -Ownership to local bodies -Operation of services by separate operator
- Financial arrangement for investment in water sector
- Operation & Maintenance by beneficiaries
- Information Management system for credible collection and dissemination
- Water Sources for water supply system has been accorded highest priority

The UN Water for Life Decade (2005-15) aims to promote efforts to fulfil international commitments made on water and water-related issues by 2015. International commitments include the Millennium Development Goals (MDG) which outline the development priorities to be achieved by 2015. Target 10 under Goal 7 (Ensure environmental sustainability) of the MDG aims to reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation.

National Policy on Water & Sanitation

The Rural Water Supply and Sanitation Sector Policy (2004), National Water Plan (2002-2017) and Sanitation and Hygiene Master Plan (2011) are the three main policy documents addressing rural water supply and sanitation issues in Nepal. The Rural Water Supply and Sanitation Sector Policy, Strategy and Action Plan (2004) states that the government and local bodies will regulate, monitor and facilitate the implementation of rural water and sanitation plans and programmes. The overall objective of the policy is to improve the health status of the people in a sustainable manner.
As there is a big gap between access to water and sanitation facilities, the government of Nepal has recently approved the National Sanitation and Hygiene Master Plan (2011) with special focus on declaring Open Defecation Free (ODF) areas. This Plan outlined minimum indicators for Open Defecation Free (ODF) area declaration, which brings uniformity among the different stakeholders. The Plan will have significant impact to increase the access to sanitation and hygiene as it has adopted the following nine-point guiding principles which streamline and synchronize the scattered and uneven efforts of concerned government agencies, local bodies, donors, I/NGOs, and other WASH stakeholders.

Nine guiding principles adopted by the Hygiene and Sanitation Master Plan (2011) are:

1. **ODF as the Bottom Line**
2. **Universal Access to Sanitation in Water Supply and Sanitation Projects**
3. **Technology choices for Household Toilets**
4. **Leadership of the Government Local Bodies**
5. **VDC or Municipality is the Minimum Program area for Program Intervention**
6. **Locally Managed Financial Support Mechanism**
7. **Sanitation Facilities in Institutions**
8. **Mandatory Provision of Properly Designed Toilets and Sanitary Systems in New Built up Areas and their Regular Maintenance**
9. **Hand Washing with Soap and other Behavioural Build up**

Karnali Zone is one of the most isolated and remote areas of Nepal with very limited access to water and sanitation facilities. All the non-local materials required for the construction of such service provisions have to be brought from urban areas either from Nepalgunj or Surkhet. On the one hand, the cost of transportation is very expensive while on the other hand due to poor institutional governance, capacity of Water User Committees and poor workmanship, the constructed infrastructures are not functional. During the ten years long armed conflict in Nepal many male members from Karnali migrated to southern Nepal or India to be safe from both conflicting parties leaving women, elder people and children in their villages. As attention was not paid to build the capacity of women in water structure building and repair and maintenance, many water supply structures became non-functional. Hence the access to the water could not improve in the conflict period. Hygiene behaviour of people in Karnali in general is poor due to a low literacy rate, lack of hygiene knowledge, limited access to water supply and availability of sanitation facilities. The issues of Persons with Disabilities in Karnali are hidden and their access to these facilities is extremely low. The hygiene behaviour of the Persons with Disabilities in the region is poorer as they have less access to water supply. Prevalence of excreta related and water borne diseases in the area is high. In the post conflict period there is improvement in water supply and sanitation situation in the region (Table 1).

### Table 1: Trend of water supply and sanitation in five districts of Karnali Zone

<table>
<thead>
<tr>
<th>District</th>
<th>2008 (%)</th>
<th>2009 (%)</th>
<th>2010 (%)</th>
<th>2011 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Water</td>
<td>Sanitation</td>
<td>Water</td>
<td>Sanitation</td>
</tr>
<tr>
<td>Jumla</td>
<td>35</td>
<td>60</td>
<td>40</td>
<td>65</td>
</tr>
<tr>
<td>Humla</td>
<td>29.34</td>
<td>Not recorded</td>
<td>38.36</td>
<td>25</td>
</tr>
<tr>
<td>Mugu</td>
<td>62.50</td>
<td>35.70</td>
<td>78</td>
<td>29.83</td>
</tr>
<tr>
<td>Dolpa</td>
<td>69.6</td>
<td>12.32</td>
<td>72.10</td>
<td>24.90</td>
</tr>
<tr>
<td>Kalikot</td>
<td>22</td>
<td>9.10</td>
<td>41</td>
<td>21</td>
</tr>
<tr>
<td>Karnali</td>
<td>43.68</td>
<td>23.42</td>
<td>53.89</td>
<td>33.14</td>
</tr>
</tbody>
</table>

Source: District Water Supply Coordination Committees, (Jumla, Humla, Mugu, Dolpa and Kalikot), 2011
Table 1 (page 6) shows the improvement in the water and sanitation situation of all the five districts in the Karnali Zone. The changes were possible due to efforts from the government, support from different national and international organizations, local communities and concerned stakeholders.

**Issues of access to Water**
As per baseline Knowledge, Attitude and Practice (KAP) survey conducted in specific villages of Humla in 2009, the data shows that 48% of the population are using drinking water from an unprotected source such as irrigation canal, directly from stream, stone tap etc. and that the drinking water is considered unsafe to drink by the villagers. 49% of people are spending more than 30 minutes daily to fetch water from nearest source.

**Issues of Hygiene**
Hand washing practice with soap water in critical times such as after defecation and before having food has great value in preventing water borne diseases. Baseline (KAP) survey 2009 carried out by KIRDARC Nepal shows that only 8% of people practice washing their hands after defecation and before eating.

**Issues of Sanitation**
In light of the baseline survey, only 20% of the households have access to a latrine and those who do not have a latrine go for open defecation. 66% of the people do not have knowledge on diarrhoea and its management. At the same time, 22% of the surveyed sample population reported having suffered from diarrhoea.
Building up Healthier Communities in Karnali

Approach

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Mission East has been adopting a holistic approach to meet the needs of rural people and change the life of marginalized communities that encompass improvement in health, water and food access with emphasis on inclusive and gender-sensitive approach, as well as mainstreaming risk reduction and adaptive measures from hazards and climate changes. It has been implementing Water Supply, Sanitation and Hygiene (WASH) projects in remote villages of Karnali zone through local partner KIRDARC Nepal to improve access to water, sanitation and hygiene promotion. Mission East is responsible for technical backstopping to implementing partner and quality control. In order to promote hygiene and sanitation in Karnali, Mission East and KIRDARC have been following various approaches such as:

- Child to Child Learning
- Child to Community Learning
- Community led Total Sanitation (CLTS) Approach
- School lead Total Sanitation Approach (SLTS)
- Open Defecation Free (ODF) area declaration
- Use of Self-esteem, Associative strengths, Resourcefulness, Action-planning and Responsibility (SARAR) tool
- Exchange visit approach
- Use of KIRDARC Nepal's Participatory Hygiene and Sanitation Transformation (PHAST) tool
- Celebration of Special days like World Toilet Day, Global Hand Washing Day and World Water Day

Projects

Since 2008, Mission East has implemented three WASH projects across 3 districts of Karnali: Humla, Mugu and Kalikot.

1. Clean water, improved sanitation and hygiene promotion in rural villages of Humla and Mugu, Mid-West Nepal

The project was funded by the European Commission Humanitarian Aid Department (ECHO) and implemented in Humla and Mugu district of the Karnali Zone for a period of 14 months which started in June 2008. The main objective of the project was ‘To improve the immediate living conditions of the conflict-affected rural population in Mid West Nepal through reducing vulnerability to waterborne/excreta-related disease’. The project encompassed four village development committees (VDCs) of Humla and one VDC of Mugu district (Table 2). It focused mainly on water supply, sanitation and hygiene promotion. Though it was a short term project, immense changes have been observed in the project area.

2. Sustainable water supply, hygiene and health improvements for highly vulnerable communities in Humla District, Mid-West Nepal

The project was funded by the European Union (EuropeAid) with an overall objective to contribute to sustainable reduction in rural poverty in remote conflict affected areas of Nepal. The target groups of the actions were the vulnerable population of 12 VDCs in Humla district (Table 2). The project started from January 2009 for period of 36 months. The specific objective of the project was ‘To improve the capacity of selected communities in Humla District, Karnali Zone, Mid-Western Nepal to reduce their vulnerability to disease (with a primary focus on transmissible diseases, particularly water-related diseases), thus contributing to meet three MDGs (Goal 7 - halving the proportion without improved water, Goal 6 - halting and reversing the spread of HIV and TB, Goal 4 - reducing mortality of under-five-year-olds by two thirds)’.

3. Safe drinking water, improved sanitation and hygiene behaviors in remote areas of Karnali, Mid-West Nepal

The project was funded by ECHO for a period of 13 months which started from November 2010. The project covered 5 VDCs of Kalikot district; Ramnakot, Nanikot, Thirpu, Khina and Dhoulagho. The principal objective of the project was to improve the immediate living and health conditions of the extremely remote and impoverished rural population in Mid West Nepal by reducing vulnerability to waterborne/excreta-related disease. The project action focused on guaranteeing that the beneficiaries had sustainable access to safe drinking water supply of sufficient quantity and quality through the design and
construction or improvement of water schemes, considering their protection from natural disaster.

The Projects were implemented in close coordination and collaboration with local bodies such as District Development Committee (DDC), Village Development Committees (VDCs), District Water Supply, Water and Sanitation office (DWSS) for improving the capacity in terms of planning, monitoring and supervising.

**Project Area**

Mission East’s water supply, sanitation and hygiene project encompassed a total of 18 VDCs in three districts of the Karnali Zone (Table 2 and Figure 1) which were identified as the high priority for WASH intervention.

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**Table 2: WASH Project Coverage**

<table>
<thead>
<tr>
<th>Project</th>
<th>Coverage VDC</th>
<th>No of Water schemes</th>
<th>Beneficiaries</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>HH</td>
<td>Male</td>
</tr>
<tr>
<td>Humla District</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean water, improved sanitation and hygiene promotion in rural villages of Humla and Mugu, Mid-West Nepal (ECHO-002)</td>
<td>Shreenagar, Kalika, Jaira, Saya</td>
<td>12</td>
<td>1131</td>
<td>3617</td>
</tr>
<tr>
<td>Sustainable water supply, hygiene and health improvements for highly vulnerable communities in Humla District, Mid-West Nepal (EUA-002)</td>
<td>Jaira, Saya, Gothi, Melchham, Darma</td>
<td>14</td>
<td>541</td>
<td>1728</td>
</tr>
<tr>
<td>Sustainable water supply, hygiene and health improvements for highly vulnerable communities in Humla District, Mid-West Nepal (EUA-002)</td>
<td>Raya, Lali, Chhipra, Syada, Madana, Shreenagar, Kalika, Jaira, Saya, Gothi, Melchham and Darma</td>
<td>N/A</td>
<td>3384</td>
<td>11686</td>
</tr>
<tr>
<td>Mugu District</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean water, improved sanitation and hygiene promotion in rural villages of Humla and Mugu, Mid-West Nepal (ECHO-002)</td>
<td>Dhainakot</td>
<td>2</td>
<td>279</td>
<td>610</td>
</tr>
<tr>
<td>Kalikot District</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safe drinking water, improved sanitation and hygiene behaviors in remote areas of Karnali, Mid-West Nepal (ECHO-003)</td>
<td>Thirpu, Ramnakot and Nanikot, Khina and Dhaulagoh</td>
<td>11</td>
<td>788</td>
<td>2810</td>
</tr>
<tr>
<td>Safe drinking water, improved sanitation and hygiene behaviors in remote areas of Karnali, Mid-West Nepal (ECHO-003)</td>
<td>Khina and Dhaulagoh</td>
<td>6</td>
<td>310</td>
<td>964</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>45</td>
<td>3049</td>
</tr>
</tbody>
</table>

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Achievements

1. Construction of Water Schemes and Toilets

Main Achievements

- Construction of 28 water schemes in 31 villages across 7 VDCs of Humla district which increased access to water for 8,600 beneficiaries and 2 water schemes in one VDC of Mugu district. Similarly, construction of 11 water schemes in 11 villages across 3 VDCs in Kalikot district increased access for 5,404 vulnerable people to safe drinking water with SPHERE standards. The availability of water also contributed to an improvement in hygiene behaviours.

- Availability of water has helped people in saving time to fetch water and to contribute to other economically productive works.

- Women used to take Sulpa (local tobacco) on the way to fetch water from a long distance, but since time to access water has been reduced, use of Sulpa has reduced as well, leading to less respiratory related health problems (as shared by women during Focus Group Discussions).

- According to the local people's experiences, there was a high frequency of water borne diseases in the villages before the implementation of the project. Now people hardly face such types of the disease prevalence.

- 754 households across four VDCs of Humla and one VDC of Mugu and 788 households across 5 VDCs of Kalikot district have access to toilets made of non-local materials.

- 23 schools and 3 health centers in the project area of Humla, Mugu and Kalikot districts have access to safe drinking water.

Case Story

Positive Changes on Sanitation Behaviour

Gora Kala Karki, who is in her 70s, is a permanent resident of Taligaun-Jaira VDC. Mother of 3 sons and 1 daughter Karki lives alone in separate house due to family dispute. Despite her age, she is quite active and conscious about health, hygiene and sanitation. One of the disliked habits of Gora Kala was open defecation. She always wanted to use a toilet, a pour flush latrine.

The pit latrine in her house is well protected in and around. After defecating, the pit latrine is always covered by a flat stone which prevents diffusing a foul smell and flies. According to Karki, the reason behind constructing such a toilet was to prevent her habitual open defecation, which she found difficult. “Using toilet only is now my habit, I do wash my hands with ash after going to the toilet and I have a habit of covering the water pot properly as well”, Gora Kala said. “Continuous door to door health, hygiene and sanitation activities (household visit, rally, tole education, IPRA, flagging, drama, whistling by CC if anyone does open defecation etc.) done by KIRDARC Nepal with support of community groups helped me to know about the importance of safe health, hygiene and sanitation behaviours”, Gora Kala added.

Translated and edited case study provided by Gyanu Aryal, Health Motivator KIRDARC Nepal

Easy access to ICS

Riuli Rokaya aged 40 years, is from ward no. 5 (Rokayagaun) of Shreenagar VDC. Mother of 1 son and 2 daughters, she lives with her extended family. She is responsible for cooking food for 16 members of her family. Carrying out all household chores by herself is her obligation rather than her interest. She has access to water and toilet but she had been cooking food on a traditional cooking stove.

Riuli Rokaya and her family were delighted when villagers agreed on constructing ICS with local materials in their house (as per the provision of constructing one demo ICS with local materials in each village. Rapidly she collected 12 baskets of mud and managed other raw materials needed for it. Then practical based ICS training was commenced in her house where there were one unskilled labour (trainee) and one trainer from KIRDARC Nepal. Assistance of her and her family during the construction period was important.

Riuli Rokaya said, “I feel more comfortable to work in kitchen after constructing ICS. I need less effort in kitchen now than before. ICS consumes less fire wood, gives more heat and better expels smoke out which i had not found in traditional cooking stove. Another benefit of ICS with local materials is its affordability.”

“Indoor smoke was the main problem in my house but now it is solved. Besides one demo ICS with local material and assistance of one local skilled labour was developed in our village and it is important for us. So I am quite happy and thankful to KIRDARC Nepal.” Riuli Rokaya added.

- Translated and edited case study provided by Karna Bdr Rokaya, HM
2. Awareness and Promotion of Hygiene & Health

Mission East and KIRDARC have integrated the Participatory Sanitation and Hygiene Transformation (PHAST) tools with Self-esteem, Associative strengths, Action-planning and Responsibility (SARAR) tools and Community Led Total Sanitation (CLTS) approach to make tools more adaptive to illiterate communities in the mountains for hygiene and sanitation promotion. Such integration of innovative tools like PHAST enabled population to declare ODF in two VDCs. In order to support and maintain health and hygiene promotion specially taking over the responsibility of tap stand cleanliness, a community health volunteer (CHV) was selected, trained and mobilized in each tap stand.

Main Achievements

» 1 VDC and 4 villages of Humla and 1 VDC and 3 villages of Kalikot are declared ODF.

» 31 demo ICS constructed and 31 local workers trained for skills across 7 VDCs of Humla district. ICS with local materials is affordable and has easy access. People started to construct by using local skilled labour that were trained by the WASH project.

» Community groups (created, reformed or existing) such as FCHVs, THs, Health promoters (HPs), CHVs, Care takers, Child Clubs (CCs), Water User Groups (WUGs) were trained and strengthened on water supply, sanitation, hygiene and health topics. As per the discussion and with record kept by health centers, 2-3 patients were referred by Traditional Healer to nearby health center during the first month after the training.

Case Story

Changing practices of Traditional Healers (THs) in Humla

Mission East and KIRDARC together with the District Health Office initiated training for traditional healers in Humla to provide basic hygiene and health knowledge, provision of services according to modern practices and referral to government health facilities. Training was completed in two sets in total 22 days.

“When I do the treatment for a patient without guidance by supernatural power it will not work” quoted Mangle Dhami, 82 (senior TH of Jaira, for 45 years), two years ago before receiving training. After receiving 2 sets of training he realised that disease caused by organisms cannot be treated with traditional practice but can be treated by herbs. Now if the patient is suffering from a disease, he advises them to visit health personals as soon as possible.”

He further added: “God does not like to live in a dirty place and does not favour such persons. So we should clean our house, temple, surrounding and ourselves.”

Goila Shahi, 46 from Lali, has faced challenges of being a female TH. “Before I did traditional practices to cure the disease, luckily sometimes it worked, if it did not work then people tried to get me out of the community by blaming me as witch.” Now she has got many ideas about disease and she tries to call her goddess for supernatural power and practice but alongside she refers patient to health facilities. She added “now it is my responsibility to refer patient to the health post”

“We should not stop our culture to worship god and perform the supernatural practice but we refer to health post for better results” expressed most THs during follow up visit.

By Deepak Chhetri

New Form of Bogathi Village in Humla

Bogati village used to adopt various traditional practices. Amarbal Buda shares some: “Traditional healers, open defecation, simply cleaning dishes and keeping in sun light after meal, no water for dehydration patient but giving plain bread with chilies and salt, eating vegetables and fruits without washing, no hand washing before meal, etc.”

Now the village was declared “No Open Defecation Area” on 20th March 2011. The village has taken the initiative of rewarding Rs 100/- to those who inform about faeces in outdoor and fine of Rs 200/- on those defecating openly. Every house has a toilet and are properly used. The locals translate the messages of using toilet and other hygiene behaviours to the neighboring villages as well during their personal/ business visits. The walking paths and school premises are free from faeces and bad odor.

Household cleanliness such as solid waste management, proper dish washing, covering food and water are being practiced in every house. The children are neat and clean, concerned for their personal cleanliness practise regular nail cutting, bathing, wearing clean clothes, daily brushing and hand washing.

All the people are aware of water borne diseases like stomach-ache, dysentery, diarrhoea etc. People go to the health center which has led to a drop in the death rate and disease sufferings in the area. Apart from these, the village organizes education fairs and meetings in intervals to raise awareness and help other communities in bringing changes in water and health situations.

- Karna Bahadur Rokaya, Health Promoter

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3. Institutional Sustainability

Main Achievements

- 37 Water User Groups (26 in Humla and 11 in Kalikot) are registered officially in district water resource management committee. The capacity of the water user committees, child clubs and key persons including Health and Sanitation Promoters, Community Health Volunteers, Care Takers and School Teachers has been built via various trainings (Table 3).
- 35 Child Clubs (24 in Humla and 11 in Kalikot) are trained in sanitation and hygiene and registered in District Child Welfare committee. These child clubs are very active and efficient for propagation of knowledge on hygiene and sanitation from child to child and child to community.
- Project mobilized existing and newly created local institutions/resource persons to promote hygiene and sanitation.
- Project coordinated with District and Village level WASH Coordination Committees. These committees actively involved during ODF campaign.

In each scheme an initial fund was collected and deposited in the bank account of the respective Water User Group to pay for costs of operation and maintenance after the project is over. Each Water User Group agreed to pay an additional amount in cash or kind on regular basis. The amount is used to pay the salary of the caretaker. A water tariff card was distributed to each household to ensure that each household collect the due amount for the caretakers for each scheme. A tool box was provided to each Water User Committee for repair and maintenance purposes.

### Table 3: Detail of various trainings under ME/KIRDARC WASH projects

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Training Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Humla District</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Community Health Volunteer</td>
<td>9</td>
<td>3 sets (first-7 days, second-9 days, third-5 days)</td>
</tr>
<tr>
<td>Traditional Healer</td>
<td>69</td>
<td>3 sets (first-12 days, second-10 days, third-2 days)</td>
</tr>
<tr>
<td>Health Promoter</td>
<td>59</td>
<td>2 sets (first-6 days, second-5 days)</td>
</tr>
<tr>
<td>Community Health Volunteer</td>
<td>7</td>
<td>2 sets (first-5 days, second-2 days)</td>
</tr>
<tr>
<td>Child Club</td>
<td>182</td>
<td>2 sets (first-3 days, second-2 days)</td>
</tr>
<tr>
<td>Water User Group</td>
<td>168</td>
<td>3 sets (first PMC-5 days, second O&amp;M-5 days, third-2 days)</td>
</tr>
<tr>
<td>Care Taker</td>
<td>54</td>
<td>2 sets (first-3 days, second-2 days)</td>
</tr>
<tr>
<td>ICS Skill Labor</td>
<td>31</td>
<td>One set-3 days</td>
</tr>
<tr>
<td>Teachers</td>
<td>23</td>
<td>One set-2 days</td>
</tr>
<tr>
<td><strong>Kalikot District</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Community Health Volunteer</td>
<td>0</td>
<td>2 days</td>
</tr>
<tr>
<td>Hygiene and Sanitation promoter</td>
<td>8</td>
<td>2 sets (first-7 days, second-6 days)</td>
</tr>
<tr>
<td>Community Health Volunteer</td>
<td>8</td>
<td>5 days</td>
</tr>
<tr>
<td>Child Club</td>
<td>126</td>
<td>3 days</td>
</tr>
<tr>
<td>Water User Group</td>
<td>94</td>
<td>2 sets (first PMC-5 days, second O&amp;M-5 days,)</td>
</tr>
<tr>
<td>Care Taker</td>
<td>23</td>
<td>3 days</td>
</tr>
<tr>
<td>Teachers</td>
<td>12</td>
<td>2 days</td>
</tr>
<tr>
<td><strong>Mugu District</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hygiene and Sanitation promoter</td>
<td>1</td>
<td>0 days</td>
</tr>
<tr>
<td>Community Health Volunteer</td>
<td>0</td>
<td>0 days</td>
</tr>
<tr>
<td>Child Club</td>
<td>11</td>
<td>0 days</td>
</tr>
<tr>
<td>Water User Group</td>
<td>9</td>
<td>0 days</td>
</tr>
<tr>
<td>Care Taker</td>
<td>4</td>
<td>0 days</td>
</tr>
</tbody>
</table>

*M= Male, F= Female, T= Total, D= Dalit

**Case Story**

Increasing capacity of Female Community Health Volunteers (FCHVs) in Humla

"Nobody has died in my ward due to diarrhoea and maternal problems in these two years" said Jaukala Budha, 60, from Syada VDC who has been serving for 16 years as FCHV.

Two sets of refresher trainings conducted in the frame of EUA-02 project have certainly increased the capacity of FCHVs. The pre-post tests of training, records of FCHV from their supervisors also prove the increasing capacity of FCHV. Their regular work such as reporting and recording was quite poor, which lead to unrealistic data about maternal and child health related area.

"I am now capable to provide the service to the patient on the area that we are authorised such as doses of Cotrim, preparation of ORS, use of family planning methods etc" said Kaushila Paal (32) proudly, FCHV from Saya VDC.

Applied methodology used in training and qualified trainers hired in training sessions was also a good aspect of trainings. Since the participants were illiterate pictures, role play, drama and demonstration were conducted in trainings.

"Now it is very easy to report and my confidence has definitely increased to share things in mother group meetings" said Sita Shahi (28), FCHV from Kalika VDC.

Refresher trainings to FCHVs will help to strengthen their capacity and to provide better service for the people from the communities of target area. -By Deepak Chhetri
Challenges

1. **Geographical Remoteness**: Due to lack of road access, Karnali is one of the most remote and poverty-struck regions of Nepal. The operational cost of water supply and sanitation projects are high as the materials need to be airlifted or transported from outside and unavailability of materials at sites.

2. **Food Insecurity**: Due to food insecurity, local people have greater attraction to immediate relief such as Food for Work projects where they get rice in return for their work, whatever the needs of water and sanitation facilities are. This attitude poses challenges for local participation which is crucial for sustainability of interventions. Careful collaboration and cooperation between relief and development projects is essential.

3. **Seasonal out migration and lack of operators at local level**: The acute food insecurity is forcing people to move to southern Nepal or India to seek employment opportunities especially in winter. The care takers of water systems, usually men who are trained during the project intervention are among the seasonal migrants and due to this in many cases, there are no care takers during winters. Moreover, in the summer people are busy in the field, so it is hard to get people’s contribution in project implementation. This has particularly affected projects of short duration.

4. **Duplication**: Similar projects from different NGOs, could lead to communities to receive additional support and funds rather than incentives to maintain their existing systems. Finally, communities have more than one project being run and implemented by different agencies, leading to several committees managing different projects at a time. The role of district WASH coordination committee and DDC is significant in minimizing duplication of the projects.

5. **Risk from Weather and Climate**

   - **Change induced hazards**: The regions in the Karnali region are affected by small scale but very frequent landslide, heavy rain, rock fall and mudflow that significantly affect water schemes, reservoirs, buildings, toilets, bridges, etc... and take heavy toll on their meagre budget for reconstruction and repair. Mission East has been conducting risk and hazard mapping with communities and engaged into mitigation activities to reduce the impact of such hazards but mainstreaming disaster risk reduction should become a compulsory component of development planning at VDC and district level.

   - **Defecation Free community**: The communities in the region have a long culture and practice of open defecation and use of open channel flow water. Many water supply and sanitation schemes became ineffective, people returned to use open flow water and practice open defecation in absence of active local institutions to motivate the community. SLTS and CLTS approach is very helpful to convince and mobilize the Village WASH Committee (a local institution responsible for coordination of no open defecation movement).

6. **CLTS and SLTS approach for Open Defecation Free community**

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**Learnings**

1. **Operation and Maintenance (O & M) issues**: The regular operation and maintenance (O&M) leads the schemes towards sustainability. Capacity development of community on O & M systems from start of the project plays a pivotal role in developing community ownership and sustainability. Based on the experience of the Karnali region, a long term project is necessary to develop collective ownership in the community for O & M in the area where social capital, level of awareness and literacy are pertinent issues. Rapid observation shows that communities are more interested to receive new projects rather than maintaining existing structures.

2. **Gender and Social Inclusion**: There is slow impact of globalization in the area. Even though the programme is sensitive towards gender and social inclusion perspectives, the role of marginal groups during decision making is still weak comparing with male and elite groups due to certain social taboos or barriers. Project components should address these social barriers to achieve social inclusion in decision making, including location of tap stand, equity in benefit sharing among all users and acknowledge their knowledge and ideas on O & M.

3. **Social Mobilization**: The social mobilization tools should be designed in a way to give enough time to convince marginal groups to develop awareness, understand roles in a way that they are ready to secure their space in the decision making process. Thus before actual implementation of project activities rigorous social mobilization is deemed necessary.

4. **Institutional Governance**: Transparency on decision making and understanding of own roles by each member of a Water User Group is crucial for developing institutional governance. The public audit system ensures financial transparency and a social mobilization process support for accountability and fairness of the outcomes.

5. **Gap between Water and Sanitation**: The effect of a WASH project is higher in terms of health improvement if water supply and sanitation components along with the behaviour change are implemented together. Local population think behavior change is not important as they have been practicing same routines for generations. Hygiene and sanitation behaviour change in a remote rural community is a very slow process.

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   - **The communities**: The communities in the region have a long culture and practice of open defecation and use of open channel flow water. Many water supply and sanitation schemes became ineffective, people returned to use open channel flow water and practice open defecation in absence of active local institutions to motivate the community. SLTS and CLTS approach is very helpful to convince and mobilize the Village WASH Committee (a local institution responsible for coordination of no open defecation movement).
Implementation of WASH projects in a mountainous region like Karnali is quite challenging in terms of remoteness, lack of communication, tough working conditions, the large geographical area to cover, difficulties in transportation, illiterate communities and low level of awareness. Mission East has responded to the needs of the community by working on access to safe drinking water, hygiene and sanitation promotion. KIRDARC Nepal, the local implementing partner made it possible to enhance access to water, hygiene and sanitation promotion by utilizing its organizational capacity and experience including knowledge on socio-economic profiles of the communities.

Mission East has implemented WASH activities among 18 Village Development Committees (VDCs) which addressed the need for drinking water of 3,049 vulnerable households covering a population of 19,250. Similarly, students of 23 local schools and 3 health posts now have access to water and sanitation facilities. Besides, an additional 22,855 people benefited through awareness, knowledge on hygiene and health in the Humla district.

The reduction in time for fetching water has reduced the work load of women, enabling them to provide better care for their children. Additionally, the improvement in hygiene behaviours and availability of safe drinking water reduced the prevalence of water borne diseases which was the case before the implementation of the project.

Integration of innovative tools such PHAST with other commonly used tools made it possible to raise awareness and behaviour transformation on hygiene and sanitation, especially in illiterate communities. CLTS and SLTS approach along with mobilization of child clubs demonstrated effectiveness on hygiene and sanitation, promotion and ODF declaration. Capacity building of water user committees and other institutions by various trainings ensured sustainability of water supply and sanitation. Communities actively participate in repair and maintenance of water and sanitation facilities damaged by natural hazards. Celebration of special days like world water day, hand washing day etc, with community people had positive impacts in raising awareness. The studies have demonstrated significant change in hand washing practice at critical moments such as after defecation and before meals. The programme has positively contributed in achieving the target of total access to water and toilet coverage according to Sanitation and Hygiene Master Plan (2011) and reaching 53% in toilet coverage by 2015 as per Sanitation Millennium Development Goals (MDGs).

Conclusions / Recommendations

Conclusions

The feasibility study of WASH project should be rigorous enough to be able to identify the felt needs of communities, identify community’s power dynamics and structure and cross check the scheme with other development partners to avoid duplication of resources.

WUC and water source should be registered in district before starting the implementation phase to avoid any dispute on water source in the long run. This is important in the face of climate change as it does not allow using the source for other purposes.

Use of appropriate social mobilization tools like household visits, interest group meetings are crucial to empower marginal groups for meaningful participation in water user committees and decision making. Hence it is recommended to use longer period for social mobilization and empowerment of these groups rather than formation of WUC in short duration. The process improves institutional governance and sustainability.

Seasonal outward migration of males for employment may leave communities without skilled manpower for repair and maintenance of water facilities. Given the context, it is recommended to encourage more women to participate in care takers’ training.

Short term WASH projects in Karnali are not enough to bring sustainable changes in hygiene and sanitation behaviours and build capacity of local institutions. WASH projects in mountainous regions with lower literacy rate and higher poverty rate should be of longer duration with follow up activities.

Visual Information, Education and Communication (IEC) materials such as those adapted from PHAST tools are recommended for use in future projects which may be effective to disseminate messages.

Celebration of special days and campaigns among local communities i.e. World Water Day, Hand Washing Day, World Toilet Day etc, should be promoted as they may influence people to wash their hand at least at critical moments and disseminate awareness on use of safe water during peak moments of occurrence of water borne diseases.

Child clubs are efficient to raise hygiene and health awareness and play crucial role during ODF declaration. Hence future WASH projects in the region should focus on strengthening capacity of child clubs and their mobilization.

Coordination with village WASH Committees and District WASH Committee should be promoted for no-open defecation (NOD) campaign, ODF declaration and its monitoring.