

# **Safe Water Supply for Health and Economic Development in Rural Villages of Nepal**

**(Project No. 3505001)**

**Semi-Annual Report**  
(July-December 2005)

Submitted to:  
SIMAVI, the Netherlands

Submitted by:  
Environment and Public Health Organization  
(ENPHO)  
New Baneshwor, Kathmandu, Nepal

January 2006

## Background Information:

<b>Project Number and Title</b>	3505001 - “Safe water supply for health and economic development in rural villages of Nepal”
<b>Project Areas</b>	100 wards of Bara, Parsa, Rautahat, Siraha and Saptari
<b>Project Duration</b>	2 Years (July 2005 – July 2007)

## Progress till date:

### 1. Project Management

- *Established Field Office at Birgunj in Parsa District:* The field office is well equipped and all the project activities at district and community level are being coordinated by the Field Office.

- *Project staffs recruitment*

Bhushan Tuladhar – Team Leader

Makhan Maharjan – Program Manager- ENPHO, Kathmandu

Bipin Dangol – Project Coordinator- ENPHO, Birgunj

Hari Budhathoki- Field Supervisor- Bara and Parsa

Jibendra Ghimire- Field Supervisor- Rautahat

Rupesh Shah- Field Supervisor- Siraha and Saptari

Lerica Gorkhaly- Office Assistant – ENPHO, Kathmandu

Gokul Basnet- Driver/Office attendant –ENPHO, Birgunj

Niranjan Pradhan- Accountant – ENPHO, Birgunj

5 Red Cross Coordinators – One Coordinator from each project district

11 Community Motivators – 2 Motivators each from four districts (Parsa, Bara, Saptari and Siraha) and 3 Motivators from Rautahat district

STEN Coordinator – one Coordinator from Save the Environment Nepal (STEN)

- *Agreement with project partner:* In order to work more effectively at the local level, ENPHO has selected local organizations who know the area and have extensive

experience in working in water and sanitation sector in the area to join hands and implement the project in partnership with local organizations and local communities. ENPHO has signed agreements with all local project partners. Before starting project activities, orientation about project objectives, implementation and activities was given to all local project partners and in consultation with the partners the responsibilities, project schedule and budget allocation for each of the project partners were agreed upon.

**List of project Partners:**

<b>Name of Partner</b>	<b>District/Project Area</b>	<b>Remarks</b>
NRCS Parsa	Parsa	-
NRCS Bara	Bara	-
NRCS Rautahat	Rautahat	Southern Part of district
STEN	Rautahat	Northern Part of district
NRCS Siraha	Siraha	-
NRCS Saptari	Saptari	-

The first installment budget for the partners has been already sent to their bank accounts and ENPHO is working in close coordination with the local project partners.

- ENPHO has selected and finalized 100 project villages (wards) from five project districts to implement the project, based on DWSS/UNICEF arsenic blanket testing results as well as suggestions from partner organizations. Factors considered while selecting the villages were vulnerability to arsenic contamination, need for mitigation measures, and experience of partner organizations.
- ENPHO conducted preliminary socio-economic survey of all the selected villages to obtain some basic information of project villages. Another survey on Arsenic and KAF awareness is going on. ENPHO will do the survey at the middle and end of the project to get comparative information on effectiveness of our awareness campaigns at the community level.

## **2. Coordination**

There are several organizations from the National Arsenic Steering Committee (NASC) and the Department of Water Supply and Sewerage at the Central level to District Development Committee (DDC), Village Development Committee and local offices of line agencies at the local level who are stakeholders in arsenic mitigation initiatives. Similarly, there are several local organizations and community groups that work in local communities where this project is being implemented and are naturally stakeholders. As the project is being implemented in 100 villages and there are many stakeholders involved, proper coordination among all stakeholders at various levels is very important. ENPHO has therefore initiated the following activities to ensure good coordination and partnership in this project.

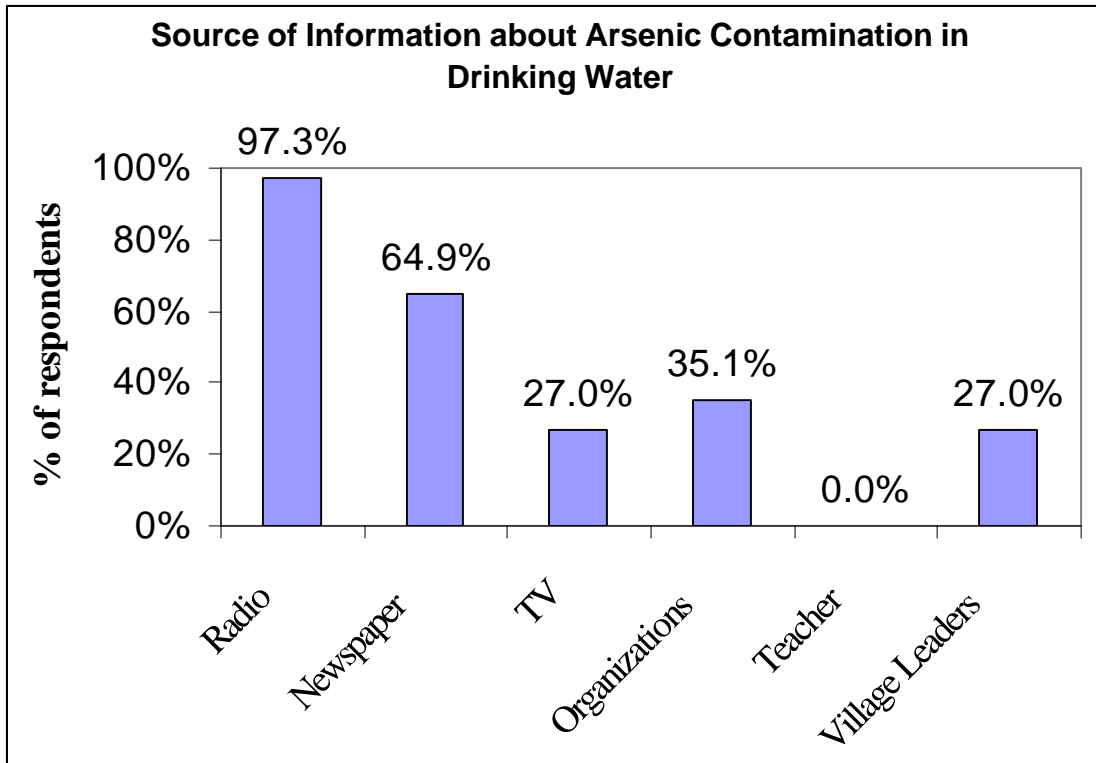
- District Coordination Meetings have been accomplished in all five districts. The main objectives of the meeting were to give information about our project activities to the major stakeholders of project districts; to initiate strong coordination for arsenic mitigation program; and to achieve support, suggestions from the local government bodies and other agencies. Representatives from District Development Committee (DDC), Water Supply and Sanitation District Office (WSSDO), the UNICEF, District Administration Office, District Education Office and other NGOs were present in the meetings. All the participants expressed their interest to promote KAF from their side.
- ENPHO is also coordinating with NASC at the central level. ENPHO has made a presentation on this project at a meeting of the NASC and incorporated the suggestions provided by the NASC members during the discussions that followed the presentation.
- In order to ensure coordination within the project, frequent field visit and monitoring is being done for better coordination and project management.

## **3. Awareness Campaign**

- *Awareness program at community level:* Local motivators are conducting awareness programs at the selected wards of the project districts. Focus group discussion,

women to women trainings on water, health & hygiene, arsenic and KAF, radio program and distribution of IEC materials are going on aiming to create and/ or raise awareness.

- Several IEC materials (posters, pamphlets, stickers, booklets, flip charts) have been developed for awareness raising campaign.
- Pre-survey conducted on arsenic awareness in a selected community in Parsa district showed that Radio is the main source of information about arsenic contamination in drinking water (Figure below). Again women and children prefer radio programs in local Bhojpuri language. Considering this, ENPHO has been broadcasting messages about arsenic and KAF in local Bhojpuri language two times in a day via Birgunj FM from four months ago. The message is broadcasted once in the morning just before giving News and in the evening before the Bhojpuri language program starts. The transmission of Birgunj FM covers Parsa, Bara and Rautahat districts. In Saptari and Siraha districts, there is no any local FM station. So, for these two districts, we have negotiated with a FM Station in Kathmandu that covers some eastern Terai region for broadcasting the message about arsenic and KAF in Maithali language. Maithali language is mostly spoken by the local people in eastern Terai region.
- ENPHO's local community motivators are conducting focus group discussions, door to door awareness and women group training on water, basic health & hygiene, arsenic and KAF. They are also collecting filter demand at the local level.



#### 4. KAF Local Entrepreneurs Training Workshop & Strengthen Supply Chain

- KAF local entrepreneurs training:* Five days KAF local entrepreneurs training was organized at ENPHO Office, Kathmandu from 16-20 January, 2006. Trainers from Centre for Affordable Water and Sanitation Technology (CAWST, Canada) and ENPHO facilitated the training program. There were 40 participants from 22 organizations of 12 Terai districts. Participants were given in-depth theoretical and practical knowledge on **Kanchan™ Arsenic Filter (KAF)** construction, operation & maintenance (O&M) – both GEM505 Plastic and Cement. The training focused on water quality, awareness raising, marketing and promotion strategy of KAF, raw materials strengthen supply chain and development of micro-finance scheme in rural arsenic affected areas.
- IEC materials were given to all the participants for distributing in their local communities.

- The project has negotiated with Gem Plastics, a local plastic manufacturer for supply of the filter bucket and basin in a more effective manner.
- ENPHO has also negotiated with 'Bhujal Hardware Shop' in Birgunj for supplying pipe fittings and iron nails.
- Nepal Red Cross Society at District Chapters in five project districts and also STEN, a local NGO, all our partner organizations in this ongoing project and Mudali Club (also our local entrepreneur) in Mudali VDC of Parsa district will construct, distribute and install the filters in their respective areas.

## **5. Financing Mechanism**

- After intensive consultation with all stakeholders, it was decided that out of the total cost of filter, which is NRs. 1,500.00 (In words: One thousand and five hundred rupees), ENPHO will provide NRs. 750.00 (In words: Seven hundred and fifty rupees) subsidy and remaining NRs. 750.00 will be collected from the user by other financing mechanisms (Saving Groups, Micro-finance, installment basis payment) if necessary, or by contribution from DDC, VDC and other agencies.
- ENPHO has consulted with several small and large institutions involved in micro finance (Winrock International, NERUDO, CMI, LUMANTI, Agricultural Development Bank, Saving and Credit Cooperatives etc) to develop an appropriate KAF financing scheme and assess KAF demand stimulation.
- Generally banks aren't willing to provide small loans for KAF purchase. Also most of the micro-finance institutions expressed that they need seed fund (revolving fund) to invest in our filter project. Some institutions weren't interested at all as it is not an income generating project. So, it has been a challenge to design financial and promotional plan with micro finance institutions so that they agree to finance KAF purchase to villagers.

## 6. New Filter Design

Present version of KAF has been accepted by the local people. It is the best arsenic removal household option getting increase in use in arsenic affected Terai communities. However, ENPHO in collaboration with other institutions is working on its design improvement for making it more user-friendly, reduce the cost and make it more technically sound. In this regard, a design specialist from School of Design, the Hong Kong Polytechnic University visited different manufactures in Kathmandu in the last week of December 2005, consulted with various stakeholders and developed a new design for the filter.

## 7. Problem Faced:

- Micro-finance institutions are not willing to invest in our filter project
- Security problem
- Difficult to find good motivators in some communities

### Schedule of project activities for next six months:

Activities	Months					
	Feb	Mar	Apr	May	June	July
Staff Coordination Meeting		/			/	
Radio Program	/	/	/	/	/	/
Focus Group Discussion	/	/	/	/	/	/
Street Drama	/	/	/	/		
KAF training to District Level Technicians	/					
District DWSS, NWSC, local government agencies training on Water, Arsenic and KAF	/					
Local School Teachers Training	/					
Local Health Workers Training	/					
Community Motivators Training	/					
School Education Programs	/	/	/			
Household Visits	/	/	/	/	/	/
Health Survey	/					
KAF Distribution	/	/	/			
Monitoring of KAF & follow-up visits			/	/	/	
Mid-Term Project Evaluation					/	
One year Report submission						/



# PHOTOGRAPHS

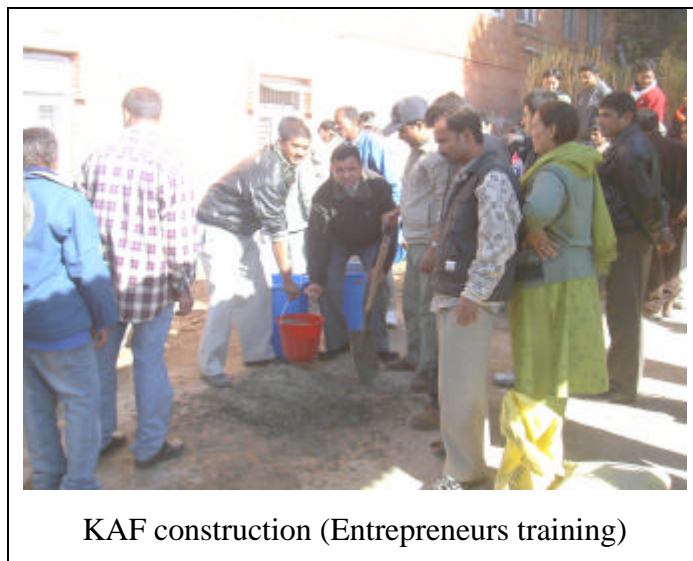




Opening Session of Local Entrepreneurs Training



Group Work (Local Entrepreneurs Training)



KAF construction (Entrepreneurs training)



Participants after construction of Concrete KAF



Present version of Kanchan Arsenic Filter  
(GEM505)– in use

## Proposed New Filter design



# IEC Materials

## कञ्चन फिल्टर Arsenic Biosand Filter

### आविष्कारक विवरण

- आविष्कारक नाम: कञ्चन फिल्टर
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### फिल्टर गर्नु तरिका

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### फिल्टर सफा गर्ने तरिका

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### आविष्कारक विवरण

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4. फिल्टर सफा गर्ने तरिका

Kanchan Arsenic Filter Bucket Sticker

## शुद्ध पिउने पानीको लागि

# कञ्चन

### आर्सेनिक फिल्टर

नाम: \_\_\_\_\_

कक्षा: \_\_\_\_\_ रोल नं. \_\_\_\_\_

निवास: \_\_\_\_\_

विद्यालय: \_\_\_\_\_

Kanchan Arsenic Filter School Sticker

## शुद्ध पिउने पानीको लागि

# कञ्चन

### आर्सेनिक फिल्टर

- आर्सेनिक नामक मन्त्र विषलाई हटाउँछ ।
- आन्दोलन नाश हटाउँछ ।
- छत्रिलोपना साईं पूर्णरूपमा हटाउँछ ।
- जीवाणु नाश गर्दछ ।
- जलघ्न पनि हटाउँछ ।

कञ्चन आर्सेनिक फिल्टर प्रयोग गर्नु, आर्सेनिकबाट बच्नु !

Kanchan Arsenic Filter Promotional Sticker

# IEC Materials

## कञ्चन आर्सेनिक फिल्टर



**कञ्चन आर्सेनिक फिल्टर प्रयोग गर्दा आर्सेनिकबाट बच्ने ।**

<p><b>यस फिल्टरका विशेषताहरू</b></p> <ul style="list-style-type: none"> <li>• आर्सेनिकको सम्बन्धी जानकारी पनि हुने ।</li> <li>• फिल्टर कालो जस्तोसक रूपमा देखिने पनि हुने ।</li> <li>• पुनः फिल्टर पनि हुने ।</li> <li>• अर्सेनिक गर्ने उक्त बर्तन सम्बन्धित पनि हुने ।</li> <li>• पानीको तापक्रम पनि नियन्त्रित हुने ।</li> </ul>	<p><b>फिल्टर प्रयोग गर्ने विधि</b></p> <ul style="list-style-type: none"> <li>• फिल्टरको पानीको बहाव नियन्त्रित राखेर पानी खिचिने पनि हुने ।</li> <li>• यस पानी फिल्टर पार पारुवाइत फिल्टरको पुनः फिल्टर गर्ने विधिबाट पनि हुने ।</li> </ul>
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**उपयोग दिनु पर्ने कुराहरू**

- फिल्टरलाई अर्सेनिक पनि निस्कने जस्तै जस्ता वा बलुवा जस्तै पनि पनि हुने ।
- फिल्टरको पानी सम्बन्धित कसैको पनि पनि सम्बन्धित हुने ।
- फिल्टरको पानी जस्तै जस्ता वा बलुवा जस्तै पनि पनि हुने ।
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**सुख स्वास्थ्यको लागि**



नेपाल रेडक्रस सोसाइटी  
सिन्धु बजार

**कञ्चन**


कञ्चन आर्सेनिक फिल्टर संस्था (संस्था)  
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Kanchan Arsenic Filter Pamphlet


पानीबाट आर्सेनिक, जीवाणु, आइरन र घमिलोपना हटाउने घरैले प्रविधि







## शुद्ध पिउने पानीको लागि



# कञ्चन

आर्सेनिक फिल्टर



Kanchan Arsenic Filter Brochure

## IEC Materials



Kanchan Arsenic Filter Booklet

