



Swiss Agency for
Development
and Cooperation
SDC



Swiss Agency for
the Environment,
Forests and
Landscape SAEFL

International POPs Elimination Project

*Fostering Active and Efficient Civil Society Participation in
Preparation for Implementation of the Stockholm Convention*

Production of IEC material on POPs and its Dissemination through Interaction Programs

**Centre for Public Health and Environmental Development
(CEPHED)**

Nepal
November 2005



About the International POPs Elimination Project

On May 1, 2004, the International POPs Elimination Network (IPEN <http://www.ipen.org>) began a global NGO project called the International POPs Elimination Project (IPEP) in partnership with the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Program (UNEP). The Global Environment Facility (GEF) provided core funding for the project.

IPEP has three principal objectives:

- Encourage and enable NGOs in 40 developing and transitional countries to engage in activities that provide concrete and immediate contributions to country efforts in preparing for the implementation of the Stockholm Convention;
- Enhance the skills and knowledge of NGOs to help build their capacity as effective stakeholders in the Convention implementation process;
- Help establish regional and national NGO coordination and capacity in all regions of the world in support of longer term efforts to achieve chemical safety.

IPEP will support preparation of reports on country situation, hotspots, policy briefs, and regional activities. Three principal types of activities will be supported by IPEP: participation in the National Implementation Plan, training and awareness workshops, and public information and awareness campaigns.

For more information, please see <http://www.ipen.org>

IPEN gratefully acknowledges the financial support of the Global Environment Facility, Swiss Agency for Development and Cooperation, Swiss Agency for the Environment Forests and Landscape, the Canada POPs Fund, the Dutch Ministry of Housing, Spatial Planning and the Environment (VROM), Mitchell Kapor Foundation, Sigrid Rausing Trust, New York Community Trust and others.

The views expressed in this report are those of the authors and not necessarily the views of the institutions providing management and/or financial support.

This report is available in the following languages: English, Nepali

Production of IEC material on POPs and its Dissemination through Interaction Programs

CONTENTS

- 1. EXECUTIVE SUMMARY**
- 2. PROJECT BACKGROUND**
- 3. PROJECT OBJECTIVES**
- 4. PROJECT ACTIVITIES**
 - *Production of IEC Material*
 - *Poster Launch and Interaction Programs*
 - *Mass Distribution of Posters*
- 5. PROJECT OUTPUTS**
- 6. THE WAY FORWARD**

ANNEXES

Annex 1. List of Participants

1. EXECUTIVE SUMMARY

The awareness about Persistent Organic Pollutants (POPs) and their relation with the incineration technologies as well as the provisions under the Stockholm Convention was particularly low among the general public and the concerned agencies. Little were they aware of the ill effects of POPs on human health and environment. It was with this background that Centre for Public Health and Environmental Development (CEPHED) took up the task of “*Production of IEC (Information, Education and Communication) material on POPs and its Dissemination through Interaction Programs.*”

The activity was found to be effective with respect to generating awareness on the issue of POPs among a wider audience; developing a network among the various stakeholders, including government officials and local authorities; and making the information on POPs and related issues widely available.

The production of educational material (i.e. posters) and its dissemination through organizing a series of interaction programs has proved to be an effective approach for creating awareness.

The poster launch and the associated interaction programs were successful in terms of raising awareness among the local authorities, medical practitioners, hospital staff, non-governmental organizations (NGOs), community based organizations (CBOs), health department, media and the general public, among others, about the close linkage between the issue of POPs and waste management, especially bio-medical waste, using either open burning or incinerators, and their adverse effects on human health and environment. These programs brought together the concerned government departments on to a common forum to openly discuss the issue and arrive at a consensus to think beyond incineration technology.

The availability as well as access to information and current situation of waste management especially medical waste management was earlier restricted to a few. It is therefore assumed that the information reached far and wide with all participants being supplied with basic Information Kits containing information relating to POPs, dioxins, incineration and the WHO policy on waste management and highlighting the necessity for the promotion of non-burning mode of technology as a long term strategy. In addition, the information about POPs and medical waste incineration, impacts of dioxins and furans, and promotion of non-burn technologies was widely disseminated through the wide circulation of posters among the various stakeholders.

It also brought to light the urgent need for a more elaborate program with elements of capacity building for the health care professionals as well as for personnel involved in waste handling to take up segregation and also the use of non-burn technologies for treating and managing waste. Creation of a few demonstration models exhibiting such effective waste management practices is likely to convince the authorities to opt for them resulting in the overall reduction of POPs.

A collaborative effort between the local authorities and civil society organisations has been very effective in achieving desirable results. Undoubtedly such collaborations hold a great potential to bring the various stakeholders on board to discuss the issue and look at possible solutions. It has been realised that it is necessary to continue such interaction programs with rest of the

municipalities and accelerate the awareness about POPs and promote non-burning mode of technology as a viable option.

In comparison to the magnitude of the problem, this initiative was a fairly modest attempt but the impact has been far reaching. It is therefore strongly recommended that more such initiatives need to be taken up across the country to develop a functional waste management system using non-burning mode of technology.

2. PROJECT BACKGROUND

The purpose of a health care institution is to ensure health within the community. However contrary to their basic purpose, these institutions, due to the increasing load of hospital waste, are becoming a major source for transmitting various diseases and putting those who handle it and live in its proximity, at risk.

There are numerous hospitals – both governmental and non-governmental, nursing homes, blood transfusion centres, medical colleges established largely in urban areas with a bonafide intention of providing medical facilities to the public. These facilities generate all types of waste such as blood and body fluids, syringes, expired drugs, clinical and pathological waste etc., a small part of it being infectious. Only a few of these facilities have been practicing segregation at source but then none are engaged with its safe disposal. Wastes coming out from these health care institutions are either burned in open space in their backyards or discarded into the municipal waste bins. Both these practices are a severe threat to the health of the patient, their family and the nearby community as well as to the medical staff themselves.

The recent trends in the management of medical waste by hospitals, both government as well as private, has been to import and install expensive incineration technology without conducting any Environmental Impact Assessment (EIA) as stipulated under the Environmental Protection Act 1996. Moreover, there are no emission standards for incinerators fixed by the concerned authority. To add, there is a lack of expertise and adequate guidelines for the operation and monitoring of these incinerators. Most of them are of substandard type.

Thus, it is important to ban incineration in the country to protect the people from exposures to the increased toxic pollution. It has been seen that the amount of dioxin and dioxin like chemicals released into the air from medical waste incinerators in hospitals and laboratories dwarfs many other sources of dioxin. Incineration is also one among the identified major sources of dioxin and dioxin like chemicals. Dioxin is listed under the Stockholm Convention on Persistent Organic Pollutants (POPs).

Therefore incinerators instead of solving the problem of waste have aggravated it. They only change the biological problem into a chemical one. When solid and liquid toxic wastes are incinerated, they transform into gaseous emissions dispersing pollutants over land, water and into the atmosphere. In addition, potent carcinogens like dioxins and furans are formed when chlorinated products like syringes; catheters, PVC tubing, blood bags, bleached paper etc. are incinerated.

Dioxins are known to cause cancer of liver, kidney, stomach, and other soft tissues and also reduce the immunity as well as reproduction capacity. The gas emissions as well as ash, the main residue from such technology has also been proved to be toxic. The toxins in the ash can also leach and pollute the groundwater, if it is dumped into a landfill.

Incinerators can provide an ideal environment for dioxin formation. It is not only the old or poorly operated incinerators that can be blamed. Even the most sophisticated state-of-the-art incinerators can potentially form dioxin.

Since Nepal is a signatory to the Stockholm Convention on POPs (signed on 5 April 2002), it is obligatory for the country to take steps to eliminate such substances rather than to promote the generating sources like incinerators. Creating awareness on POPs in general and the issues around incineration in particular are seen as crucial steps towards elimination of POPs as aimed by the POPs Convention.

Production of posters in both Nepalese and English language and making it accessible to all people, from the grassroots to the policy level, has been an effective tool for raising awareness about POPs and building pressure towards reducing or eliminating its source like open burning and incinerators.

3. PROJECT OBJECTIVES

The major aim of this project was to raise awareness about POPs, the POPs Convention and its relation with the incineration technologies and to build pressure on the concerned government authority to put a ban on it.

The objective of this program also extends to minimize the environmental and human health impacts of medical waste and prepare responsible health care workers through this educational program.

4. PROJECT ACTIVITIES

The awareness about Persistent Organic Pollutants (POPs) and their relation with the incineration technologies as well as the provisions under the relevant Convention was particularly low among the general public and the concerned agencies. Little were they aware of the ill effects of POPs on human health and environment.

To raise the awareness levels, CEPHED undertook the production of IEC material (Posters) exclusively focused on POPs and its relation to incineration and the impacts on public health and environment

The posters and other materials were made available in both Nepali and English language and disseminated at all levels, from the grassroots to the policy makers. Medical institutions were the prime target. This proved to be an effective tool to raise awareness on POPs and build pressure towards reducing or eliminating its source like incinerators.

The posters were disseminated through hosting of three interaction programs, one each at Kathmandu (central Nepal), Biratnagar (eastern Nepal) and Butwal (western Nepal). During the daylong event, the relevant stakeholders interacted and openly discussed issues of POPs and its relation with incineration. The participants included representatives from Health Care Institutes, District Health Officers, Pesticide Inspectors, Chief District Officers, Ministry of Health and the concerned Department, Ministry of Environment, Science and Technology, Ministry of Agriculture and related Department, Municipalities, NGOs, and journalists etc.

Production of IEC Material

With the above aim, CEPHED designed an educational poster in Nepali and English depicting the close linkages between POPs and Incineration technology and the possible health impacts from the same. It also includes some examples/ pictures of some poorly operated incinerators in the country to manage waste, especially medical waste. The idea was to spread the message of safe management of medical waste and encourage the use of safer alternate technologies and environmental practices including segregation, use of non-burn technology, and adoption of 3Rs (Reduce, Recycle and Reuse) principle to protect humans and environment.



Poster Launch and Interaction Programs

Interaction programs were organized at three locations to launch these posters and to further discuss the issue. The interaction program was organized in Kathmandu city on 13 July 2005, in Biratnagar on 16 July 2005 and in Butwal on 30 October 2005. In Butwal, local level collaboration has been sought with the municipality for future continuation of the program.

Other municipalities have also shown interest and requested similar intervention in their areas. This can be seen as a great beginning for working together with the local bodies responsible for waste management.

Here are some pictures of poster launching program at the three locations.



Poster Launch at Kathmandu



Poster Launch at Biratnagar



Poster Launch at Butwal

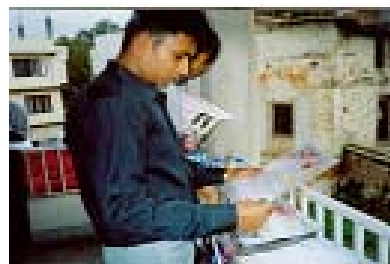
In Kathmandu, the English language poster was launched by the POPs Focal point/ POPs Enabling Activities Project Coordinator Mr. Jay Ram Adhikari. Mr. Anand Kumar Shah, President CEPHED, launched the Nepalese poster. Representative from the Ministry of Agriculture and Plant Protection Directorate, Pesticide Registrar, Mr. Bhakt Raj Palikhe also highlighted the POPs issues during the same program.

In the program organised at Biratnagar, the poster was launched by the Regional Director Mr. Tulsi Gautam, Regional Agricultural Directorate.

The third program was organized in Butwal in collaboration with the local body responsible for waste management. Mr. Anand Raj Dhakal, Executive Secretary, Butwal Municipality formally launched the poster and highlighted the issue of waste management and problems faced by their municipality.

The poster launching and interaction programs had participation from the NGOs, INGOs working on POPs and environment issue, concerned government agencies such as POPs Convention Focal Point, POPs Enabling Activities Project Coordinator, representatives from Ministry of Environment, Science and Technology, Ministry of Agriculture and Cooperatives, representatives from Plant Protection Directorate/Pesticide Registrar and Regional Agricultural Directorate, representatives from municipalities, Health care institutions, Pharmaceutical companies, University students, journalists, Environmental Engineers, Agricultural Scientists, Environmental Scientists and others. The participants at different poster launching and interaction programs at three locations namely Kathmandu (Central Nepal), Biratnagar (Eastern Nepal) and Butwal (Western Nepal) are listed in **Annex 1**.

Mr. Ram Charitra Sah, Environmental Scientist and Project Advisor for this activity presented a paper on "POPs and Waste Management in Nepal" at all the three locations. The paper described the POPs and linked the issue with waste incineration. The paper also gave a detailed description of the medical waste, its composition, the present situation, management practices and the existing legislation in the country. It highlighted the provisions of the Stockholm Convention on POPs besides



discussion issues of incineration as one of the major sources of POPs. Since the main aim is to promote safer alternatives, the paper also presented the various safe options of waste management such as segregation at source, treatment technologies (thermal, chemical, biological, irradiation, mechanical and sharp management etc). The paper concluded by saying that waste incinerators are a source of POPs (dioxin and furans) and hence should be replaced by non-burn, safer, environment friendly alternatives to eliminate POPs.

An article titled "POPs and Medical Waste" was published by Pharma Club (a network of pharmaceutical companies of Nepal) to localize the various issues of POPs and its linkage with medical waste management practices. Besides discussing the issue of dioxin generation from incinerators, it also focused on promoting the non-burn technologies such as thermal process (autoclave and microwaves), chemical process, irradiative process, biological process,

mechanical process and sharp management. The article was published in the Newsletter No.6, Oct-Nov. 2005 and circulated among the pharmaceuticals companies of Nepal.

The programs got good coverage in the media as well. Major newspapers such as Gorkhapatra Daily (government owned newspaper), Kantipur Daily, and Annpurna Post Daily covered the issues and the events. Besides, some local papers such as Darsan Daily in Biratnagar, Mechikali, Jan Shangharsh, Butwal Today and National Daily in Butwal carried stories.

An interesting outcome of one of the poster launching and interaction program was that while describing the alternatives to incineration, a representative from Koshi Zonal Hospital from Biratnagar demanded from the municipality representative to make available the Needle Destroyers. This clearly shows that the alternatives to incineration were never before shared with the people. The health care institutions highly appreciated the program and showed interest in the non-incineration technologies. This is a major achievement for such small efforts towards POPs and its source elimination.

At Butwal, the Chief Planning Officer, Ms. Nirmala Adhikari commended CEPHED for the efforts and remarked that the municipality has been planning to install an incinerator without looking at other available technologies. The discussions have been an eye opener for them and now they would explore other options.

Mr. Sagar Gynawali, Environment Engineer responsible for environment and sanitation section showed keen interest in developing some model projects and promised support for the first demonstration project in Butwal municipality for safer waste management program.

The participants were given an Information Kit containing organizational brief introduction, presentation on " POPs and Waste Management in Nepal", dioxin fact sheet, incineration ban and moratoria, WHO's policy paper on Safe Health Care Waste Management which highlights the fact of promoting non-incineration alternative as their long term strategies.

Posters were also given out for dissemination among their colleagues. Posters were also distributed widely in other parts of the country such as Birganj, Janakpur, Kathmandu, and Biratnagar etc.

Mass Distribution of Posters

National Dissemination

In addition to the poster launching programs in three cities, posters were widely distributed through mailers as well as at other forum and meetings, both nationally and internationally.

Posters have been kept at central contact points where the concerned people could visit and take the posters such as at the Library of Nepal Health Research Council, the Office of the POPs Enabling Project under Ministry of Environment, Science



and Technology and others. An appeal note to stop incineration and to promote safer technologies accompanied the posters.

In addition, the posters were distributed widely in the major urban areas including Kathmandu, Pokhara, Janakpur, Nepalganj, Dang, Ghorahi, Chitwan, Nawalparasi, Bara, Parsa, Siraha, Biratnagar, Bakhtpur, Birganj and others.

Posters were distributed among concerned government ministries and departments, pharmaceutical companies, health care institutions including nursing homes, Regional Medical Store, District Public Health Department, District Agriculture Office, pesticide retailer shops, medical shops, schools and colleges, municipalities, Village Development Committee, NGOs, INGOs, and Donor consortium working on waste management and medical waste issues.

Participation in Pharmacy Expo 2005

Posters were also distributed among the interested participants and visitors at Pharma Expo 2005, organized by the Nepal Pharmaceutical Association in Kathmandu in September 2005. About 75 national and international pharmacy companies participated in the Expo and was visited by about 50,000 people, a majority being related to the medical and health sectors.

International dissemination

Posters were distributed to network partners and key people and agencies in other countries/region. Some of these include:

- UNIDO officials in India while participating in a Prioritisation Workshop organized by POPs Enabling Activities Project, a project taken up by the Ministry of Environment, Science and Technology in February 2005.
- WHO health sector officials at WHO Headquarter, Geneva, Switzerland in June 2005.
- At the World Youth Foundation's International Conference on Disaster Management and Environment in Malaysia in August 2005. Posters were among the participants from 17 countries including India, Bangladesh, and Malaysia, representative of UNEP, Australia, Philippines, China and others.
- At the Friends of the Earth International (FOEI) meeting at Penang, Malaysia having representative from 70 countries. The posters were displayed as well as distributed in all the parallel events.
- To other IPEN members from India and Pakistan
- To members of other International Networks related to the issue such as GAIA and Health Care Without Harm.



5. PROJECT OUTPUTS

The project outputs can be summarized as below:

- The poster launching and interaction program was successful in terms of raising awareness among the various stakeholders the relationship between POPs and waste

management practices especially through open burning or incinerators and their adverse effects on human health and environment.

- The program succeeded in bringing the various concerned government agencies and departments on to a common platform to discuss the issue and arrive at a consensus to think beyond the incineration technology.
- The program resulted in the expression of interest and firm commitments from the government agencies. An example of this is the interaction program organised in Butwal where the concerned municipality directly responsible for POPs and waste management issue collaborated with CEPHED in organising the program. Likewise wholehearted cooperation was extended by official such as POPs Enabling Activities Project Coordinator from Ministry of Environment, Science and Technology (MOEST), Regional Agricultural Director and the Executive Secretary, Butwal Municipality who participated in the programs.
- A network of relevant stakeholders who participated in the programs has been developed.
- The availability as well as access to information on the current situation of waste management especially medical waste management was earlier limited. It is therefore assumed that the information kit given out to the participants at all the locations proved to be a useful source of information. The information about POPs and medical waste incineration, impacts of dioxin and furan and non-burn technology was also widely disseminated through the posters, which was circulated widely among all the concerned stakeholders.
- The information shared during the program proved to be an eye opener for the participating doctors and waste handlers of health care facilities. One of the doctors remarked that the health institutions (including his own) have for long been burning medical waste in the backyards unknowingly endangering the health of the community by exposing them to dioxin and furans.

6. THE WAY FORWARD

This can be seen as a small initiative that brought about some desirable results. However a lot more desires to be done in this direction. Here are some of the areas that require urgent attention:

1. The interest generated during these workshops needs to be taken to a higher level. Authorities such as Kathmandu Metropolitan City have expressed interest in non-burn options but may require technical as well as financial support to make the switch possible. Creation of demonstration projects would convince more players.
2. Collaborations with local agencies for continuation of such education and awareness program along with increased technical and financial input towards developing a model waste management system. Few municipalities have expressed interest in collaborating on some innovative projects. This needs to be explored in the future.
3. Capacity building program is necessary for the health care professionals including those involved in handling and disposal of medical waste. Programs can be initiated in collaboration with the participating hospital as well as local authority responsible for the waste management.

4. Awareness programs need to cover other municipalities as well in order to accelerate the movement against incineration. There is a need to create awareness about non-burn technology and introduce some promotional schemes.
5. Since the issue is not limited to Nepal alone, a regional and international level campaign needs to be initiated.

Annex 1. List of participants

Interaction Program at Kathmandu, July 13, 2005.

S.No	Name	Organizations	Sectors/Designation
1	Puspa Ratna Shakya	Ministry of Env., Sc.& Tech. (MOEST)	Government
2	Mukund Prasad Upadhaya	Omnica Pharmaceutical Lab	Pharmacy
3	Subodh Gautam	Kantipur Daily	Journalist
4	Deependra Deendukhee	Jan Aashtha Weekly	Journalist
5	Puskar Mathema	Gorkhapatra Daily	Journalist
6	Birendra Kumar Yadav	PAIRD -Nepal	Engineer
7	Ram Bahadur Shreshtha	Ministry of Ag. and Cooperative	Under Secretary
8	Drub Narayan Manandhar	POPs project Consultant for Govt.	Pesticide Expert
9	Kumari Shabha	LUMANTI	NGO
10	Indu Shah	LUMANTI	NGO
11	Pradip Kumar Mandal	Himalayan White House College	Lecturer
12	Dipendra Mahasheth	Kupandol	Lecturer
13	Dr. Pramod Bhatta	Government Aurbedh Hospital/Tribhuwan University	Doctor, Public Health
14	Besuram Humagain	NPA	
15	Dilip Kumar Suwal	Bhaktpur Municipality	Local Authority/bodies
16	Vikram Basyal	CKV/JICA	Clean Kathmandu Valley Project
17	Lal Bahadur Thapa	Forum for Justice	NGO, IPEP partner
18	S.K.Shah	NIMST	
19	Arun Acharya	National Health Research Council (NHRC)	Health Consultant
20	Kapur Poudel	National Health Research Council (NHRC)	Health Consultant
21	Bhakt Raj Palikhe	Plant Protection Directorate, Pesticide Registrar and Monitoring Division	Government, Pesticide Registrar Office
22	Jay Ram Adhikari	POPs Enabling Activities Project, MOEST	Project Coordinator
23	Purshottam Manandhar	Mannadhar Agrovet	Pesticide Dealers
24	Rakesh Regmi	CEMECA Consultancy P. Ltd.	Environment Consultancy
25	Nihal Bahadur Rana	NORVIC Hospital	Hospital
26	Raj Kumar dikpal	Annapurna Post	Journalist
27	Santosh Kumar Gupta	Zero Waste Nepal	NGO
28	Bhagbati Kunwar	Amrit Science Campus	Student, Env. Sc.
29	Pradeep Amatya	Lalitpur Sub-Metropolitan City	Local Authority
30	Rana Pratap Shingh	Institute of Engineering (IOE)	Professor/Consultant
31	Madan Kumar Suwal	Khowpa Colleege	Student, Env.Sc.
32	Rosy Makaju	Khowpa College	Student, Env.Sc.
33	Dr. Baidnath Mahato	NARC, Khumaltar	Senior Scientist
34	Shankar Kumar Shrestha	MOEST/POPs project	Program Officer
35	Yash Tandukar	Waste Processing Society(WPS)	
36	Bikalpa Gautar	SchMES College	Student, Env. Mgmt.
37	Maya Kumar Bhatt	Khwoa College	Student, Env.Sc.
38	Man Kumar Dhamala	Khwoa College	Student, Env.Sc.
39	Bhoj Raj Ayer	SHELGA	NGO, IPEP Partner
40	Suman Adhikari	PSI Nepal	INGOs, Health sector
41	Ram Charitra Sah	CEPHED, Environment Scientist	NGO
42	Kameshwar Yadav	CEPHED, Geologist	NGO
43	Anand Kumar Shah	CEPHED, Chairman	NGO
44	Bijay Sikdel	CEPHED, Vice Chairman	NGO
45	Subashan Bajracharya	CEPHED, Secretary	NGO

46	Nitesh Kumar Shah	CEPHED, Electronics Engineer	NGO
----	-------------------	------------------------------	-----

Interaction Program at Biratnagar, July 16, 2005.

S.No.	Name	Organizations	Sectors/Designation
1	Tulshi Gautam	Regional Agricultural Directorate	Regional Director
2	Prakash Kumar Dangi	Regional Agricultural Directorate	Agriculture Officer
3	Ram Pabij Mandal	Regional Agricultural Directorate	Agriculture Officer
4	Bhagirath Yadav	Regional Agricultural Directorate	Agriculture Officer
5	Ganu Upreti	Koshi Zonal Hospital	Medical Officer
6	Shova Lama	Koshi Zonal Hospital	Medical Officer
7	Nirmala Suwal	Koshi Zonal Hospital	Medical Officer
8	Bina Shrestha	Koshi Zonal Hospital	Medical Officer
9	Naina Katuwal	Koshi Zonal Hospital	Medical Officer
10	Gita Bhandari	Koshi Zonal Hospital	Medical Officer
11	Arjun Thapaliya	Biratnagar Sub-Metropolitan City	Local Authority
12	Sarda Thapalia	Biratnagar Sub-Metropolitan City	Local Authority
13	Mohan Bahadur Karki	Biratnagar Sub-Metropolitan City	Local Authority/ Environment Engineer
14	Rajednra Pradhan	Biratnagar Sub-Metropolitan City	Local Authority
15	Sabita Ghimere	Biratnagar Sub-Metropolitan City	Local Authority
16	Ambika Pd. Dhakal	Abadh Narayan Nursing Home	Medical Officer
17	Ram Prasad Sibakari	District Agriculture Development Office	Agriculture Officer
18	Mahendra Bista	Dashan Daily	Journalist
19	Bhim Ghimire	Kantipur Daily	Journalist
20	Mina Joshi	Nepal Red Cross Society	
21	Ragendra Prasad Shah	Biratnagar	Local People/ Lecturer
22	Kameshwar Yadav	CEPHED, Geologist	NGO
23	Ram Charitra Sah	CEPHED, Environment Scientist	NGO

Interaction Program at Butwal, October 30, 2005.

S.No.	Name	Organizations	Sectors/Designation
1	Bisheshwar Prasad Mishra	AMDA Hospital Butwal	Hospital Administration
2	Sagar Gnawali	Butwal Municipality	Local Authority
3	Kamala Kunwat	Butwal Today	Journalist
4	Laxman Poudel	Jansangharsa Daily	Journalist
5	Bell Prasad Gautam	Mechikali Daily	Journalist
6	Dr D.B. Khatry	Khatry Medical	Doctor
7	Rohit Raj Chhetry	NC Doctor Association Lumbini Zone	Chairman, Doctor Association
8	Bhim Tulachan	Lumbini Nurshing Home	Doctor
9	Tej Kumar Pathak	Forum for Consumer Interest Protection	NGO
10	Babu Ram Bhattarai	Lumbini Zonal Hospital	Waste Manager
11	Rang Nath Regmi	Butwal Municipality	Local Authority
12	Shiva Narayan Shah	Butwal Municipality	Local Authority
13	Anand Raj Dhakal	Butwal Municipality	Executive Secretary, Local Authority
14	Yam Bahadur Thapa	Butwal Municipality	Local Authority
15	Damodar Gyawali	Butwal Municipality	Local Authority
16	Sher Bahadur Poudel	Butwal Municipality	Local Authority
17	Dol Raj Poudel	Butwal Municipality	Local Authority
18	Bhuwa Prasad Luitel	Butwal Municipality	Local Authority

19	Bishnu Prasad Khanal	Butwal Municipality	Local Authority
20	Dhageshwar Pokhrel	Butwal Municipality	Local Authority
21	Mrs. Nirmala Adhikari	Butwal Municipality	Planning Chief, Local Authority
22	Khem Bahadur Poudel	BTO	Hospital
23	Liladhar Basyal	BTO	Hospital
24	Yamlal Khanal	FIHD	NGO
25	Kameshwar Yadav	Program Officer/ CEPHED	NGO
26	Ram Charitra Sah	Environment Scientist / CEPHED	NGO
27	Saroj Kumar Shah	Chemical Engineer CEPHED	NGO