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International POPs Elimination Project

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

Minimizing the Adverse Impacts of POPs through an Awareness Programme

Balangoda Environmental Forum (BEF)

**Sri Lanka
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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>

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About the Organisation

Balangoda Environmental Forum (BEF) has been actively working on environmental issues in Sri Lanka since 1990. The initial efforts were focused on the conservation of natural resources largely through activities taken up with school students in the rural areas and their parents. It has since come a long way and gained reputation for their good work across the country. BEF has also taken up activities with the support from Global Environmental Facility (GEF).

The main areas of intervention till quite recently were biodiversity and energy conservation. The addition of a new issue, Persistent Organic Pollutants (POPs), has made their portfolio wider. This is an outcome of the National Capacity Building workshop on the issue of POPs organised for civil society groups under the International POPs Elimination Project.

Background

Persistent Organic Pollutants are a major hazard to the health and environment but among the general public it has yet to be recognized as a problem. There is lack of awareness about these chemicals and their adverse health impacts.

Ceylon electricity board is the main custodian of the PCB containers in the form of transformers. Some of them are not currently in use. These are stored often under unsafe conditions. One of the major electricity-generating stations is the Samanawewa Hydro Power project, which is under the Ceylon Electricity Board. They are in the process of getting ISO14001 certification and their focus is on minimizing the environmental hazards and reducing the emissions and effluent release and disposing them in an environmentally sound manner.

Another problem in the area is of the open burning of garbage contributing to emission of dioxins and furans into the environment.

I. ACTIVITIES OVERVIEW

With this background, BEF planned to take up activities with the basic purpose of increasing the knowledge and awareness levels on POPs. In addition, it intended to do a surveillance of the prevailing conditions and take measures to reduce the levels of POPs emissions in the environment. Collection of data and creating awareness regarding the status of PCB transformers in the area was another prime objective.

Since the issue of POPs is so wide and affects people from all walks of life, BEF decided to focus its efforts on targeted groups. These include: students of the schools located in the vicinity of any POPs source; municipal workers; workers handling transformers and other equipments containing POPs; and hospital staff.

1. Awareness Programme

The idea was to create awareness among the groups described above. The awareness sessions covered a general introduction on POPs since the awareness about the issue was almost

negligible. They were apprised of the current situation and the threats that these chemicals pose to human health and environment. The general presentation of the issue was followed by a group-specific presentation linking the issue of POPs with their respective work environment. Most importantly, the presentation described the responsibility of each group and the role that they can play in reducing and eliminating POPs.

Generating awareness among the participants was the prime objective of these interventions, but the increased awareness levels sparked actions targeted at POPs elimination, all on their own initiative.

Here is a brief on the various awareness programmes:

a. With School Children

The main objectives of the school awareness program were to bring about an attitudinal change among the students and make them aware of the threats currently posed by POPs and prepare them for action. These students are likely to develop greater sensitivity towards the environment and become responsible citizens.

The awareness activities covered students from 3 schools and 1 student's society (representing different schools). Over 150 students participated in the awareness workshops.

Besides creating awareness among the students as well as the school staff, a direct outcome of this program was the establishment of a "POPs Vigilance Committee" in the participating schools. Around 40 students volunteered to be on the committee. The prime role envisaged for the POPVC is of a watch dog. It would keep a vigil on the community and sound alerts in case any threatening practice is found. It would further create awareness on the issue among others.

b. With Workers of Ceylon Electricity Board

Since the staff of the Ceylon Electricity Board faces a constant threat from the POPs-contaminated transformers and other equipment, this was another important group that needed to be aware of the issue as well as measures for their own safety. Two sessions were conducted with them. In addition, a panel discussion was also organized to introduce the issue and involved higher-ranking officials of the Board.

In the course of this activity, an exploratory tour of the site was taken up and in the process identified a transformer with a leak where the oil was percolating down onto the soil. Since there is no inventory of PCBs yet, and with lot of cases of cross contamination of transformers (i.e. non-PCB ones get contaminated with PCB at the time of maintenance) coming to light, a precautionary approach was suggested. The Officials of the Electricity Board promised to take action to prevent any further contamination.

This was one of the biggest achievements of his program. Within only a few days the authorities took cognisance of the issue and took the necessary steps to plug the leak. It also displayed a notice near the site that gives clear guidance to the workers on the steps they should follow in case they notice any such cases of oil leaking in the future.

The awareness program with the workers was also very successful. The workers clearly understood the impacts, both environmental and health, from PCBs and HCB. For some of

them this information was completely new despite them dealing with electrical equipment and transformer for years. This activity covered 22 workers.

The outcome of this activity included greater awareness among workers about the health impacts and use of safety precautions. A system of constant vigilance has been introduced on the site to check any spills and leaks contaminating the environment. The awareness program shall continue in the future and cover more workers.



Leak from the transformer at Samanalawewa Hydro Power Station



Status after taking adequate action

c. With the Municipal Workers

The site identified to take up the activity was Bankiyawaththta dumping ground. This is the main dumping site under the control of the urban council at Balangoda. The biggest composting programme is running at the same site. This was started several years ago. Burning of garbage is the main problem.

Although the Urban Council has taken the necessary steps to take up composting of the wet waste, nothing has been done to deal with the non-degradable waste such as plastic, PVC materials, and Polythene and Polypropylene.

The large quantities of non-decaying materials lie dumped without a proper solution. Accidental fires on the site are common. These pose a serious threat to the health of the workers working on this site as well as of the residents of the nearby locality. The selection of the site therefore was ideal to take up an awareness program.

The main aim of the program was to make the workers aware of the issue of POPs and their health impacts and to encourage them to stop burning waste and also take steps to reduce the accidental burning since it emits dioxins. They were also told of the safety precautions that need to taken while at work.

As an outcome of the activity the workers have assured BEF



Scattered rubbish



Composting of waste



Bins for open burning

that they will stop the practice of open burning on the site as well as within their community.

d. With Medical Care Staff

Awareness sessions were taken up with the staff of the District Hospital. The health care system in the area is vast and includes one Base hospital, two District hospitals, 3 rural hospitals and one central dispensary. The quantity of waste generated by these institutions is large and makes a major contribution to the total dioxin release in the country.

The main focus here, besides sharing general concerns about POPs, was to highlight it as a public health concern. It was also stressed how the health care providers are unknowingly putting people's health at risk by improper management of bio medical waste. The regulatory aspects with regard to operation of incinerators were also discussed. In addition, the concept of reduce, reuse and recycle was introduced as a way forward. Another issue of importance shared with the group was the use of DDT for vector control. Being public health functionaries it is important they be aware of the various aspects of the problem. It is equally important for this awareness to trickle down to the staff at the lowest levels since they are often responsible for managing/ disposing the waste.



Session in progress with medical staff

The Medical Officer of Health, Balangoda, Dr. Upul Dasanayaka, showed keen interest in the issue and promised his support in taking it forward. As a long-term strategy the following were identified: adequate policy framework regulating bio medical waste; promotion of alternatives to managing waste; and a shift from onsite to off site treatment facilities/ incinerators. An advocacy campaign around these issues shall be built in the future.

2. Preparation of an Inventory of Transformers

In the process of inventorying transformers, 113 transformers have been identified in the area. Three out of these 113 have some leakage. This information has been provided by the student members of the POPs Vigilance Committee. The matter has been reported to the Ceylon Electricity Board.

The inventory contains the following information on the transformers:

- Locality
- Map of the locality
- Road Access
- List of the villages and cities
- Year of the production
- Capacity
- Voltage
- Obsolete or being used
- Year of the installation
- Quantity of the chemical in use
- Type of the chemical (Trade name etc.)
- If any visible leakage
- If any, frequency of the leakage

Since laboratory facilities for analysis of PCB's are not available in Sri Lanka it is not possible for the NGO to confirm the POPs status. However to make a rough estimation other means were adopted such as the trade name, country of manufacture, year of installation/import etc. were used. This will be printed in the form of a booklet for wider dissemination.

II. KEY OUTCOMES

The various outcomes can be summarised as follows:

- Enhanced awareness on POPs issues among groups that are at greater risk from POPs exposure.
- Commitment from the Electricity Board to apply a precautionary approach concerning the transformers to reduce the threats posed by POPs. Repairs will be taken up on an expedited manner.
- Formation of a POPs Vigilance Committee comprised of interested students now aware of the POPs threat. This shall help in identifying practices that may be contributing to the release of POPs in the environment.
- Awareness among community at large against the harmful effects of open burning. This is likely to reduce the practice.
- Awareness among workers of health care institutions shall ensure taking steps for proper management and disposal of bio medical waste.
- Momentum built up for further work on POPs issue.

III. FUTURE PLANS

BEF plans to further build on the momentum that has been generated during the past months from the various interventions on POPs in the area.

One of the future plans is to carry on with the awareness activities through the Student's POPs Vigilance Committee. The plan is to also set up a Regional POPs Vigilance Centre in the area that will disseminate information about the issue. By integrating the issue of POPs with larger issues such as Eco Tourism, the impacts could be much more.