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International POPs Elimination Project

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

Country Situation Report on POPs in Yemen and Public awareness-raising and hotspot identification

**Yemeni Society for Environment and Sustainable
Development**

Yemen
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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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Yemen Country Situation on POPs: Public awareness-raising and hotspot identification

Materials

During the project the following materials were prepared: posters, stickers, and brochures. The materials included the identification of persistent organic pollutants, their sources and hazards. They have been distributed and mounted in a number of departments, establishments, companies, schools, colleges, in all populated areas, public squares, tourist parks, means of public transport, etc.

Awareness-raising lectures

An awareness lecture was given on 13.12.2005 for teachers and students of some basic and secondary schools in Ta'izz, including Al-Hamza Complex Basic and Secondary Education School, and Arwi Basic and Secondary Education School.

Another awareness lecture was given on 14.12.2005 on persistent organic pollutants and their effect on health and environment. Competitions were held, in the form of questions and answers for the students, to evaluate their level of comprehension, and to reinforce information in their minds.

A third awareness lecture was given on 19.12.2005, at the Faculty of Education and Arts, Aden University, by Dr. Nada Al-Sayed Hassan. The lecture dealt with persistent organic pollutants, and was attended by many staff members, assistants, employees and students. The points discussed were about persistent organic pollutants, their hazards and how they can be avoided, in addition to how to eliminate the effects of such substances.

Press

A televised interview was conducted on 20.12.2005 on the weekly programme 'Interview of the Week', presented on Channel 2 of Aden Television. The interviewees were the Society Head, Mrs. Asshar Bahaj, and the Society Members, Dr. Nada Al-Sayed Hassan, Assistant Professor of Environment Sciences at the Faculty of Education. The talk covered several aspects including the identification of persistent organic pollutants, their importance and hazards, disposal methods, and use of alternatives. The talk also covered the Stockholm Convention, and the objectives and activities of the International POPs Elimination Project (IPEP), and the role of government and non-government organizations in the activities of the project

Workshop

The society organized a workshop on persistent organic pollutants on 21.12.2005, in the auditorium of the Public Authority of Environment Protection in Aden Governorate. The workshop gained a good media coverage from the Yemeni Republic Television. The symposium was also covered by a number of local newspapers.

The workshop covered four main subjects under the following headings:

- A general view on the Stockholm Convention on persistent organic pollutants.
- Pesticides (uses and fatal harms).
- Managing solid waste in Aden City.
- Persistent organic pollutants.

Participants in the workshop discussed the Stockholm Convention and the national and popular efforts, in addition to the uses and harms of pesticides.

The Society Head, Mrs. Asshar, stated that the aim of the workshop was to shed light on the widespread of persistent organic pollutants in Yemen, and to create public awareness of persistent organic pollutants, their effects and harms, what they are, and how to avoid them.

Dr. Abdul-Rahman Alawi Ben Yahya, from the Environmental Studies and Sciences Centre, Aden University, talked about pesticides: uses and fatal harms. In his lecture about pesticides in Yemen, he explained that Yemen, like other countries, imports different kinds of pesticides that represent 118 effective substances under 555 different trade marks. The amount of pesticides imported in 2002 was estimated at 1846.9 tons. Table (1) shows the different kinds of imported pesticides and their quantities.

Some of the published studies indicated that most of the pesticides used in Yemen are phosphoric and carbamide organic compounds of the toxic types, some of which are internationally prohibited as cancer-causing pesticides. These include:

1. carbaryl
2. captan
3. cypormethrin
4. chlorothalonil
5. dicofol
6. dimethoate
7. mancozeb
8. propergiteb
9. propoxur

Table (1): Various Kinds and Quantities of Imported Pesticides in 2002.

No.	Kind of Insecticide	Quantity in Tons
1	Pesticides	1177.6
2	Fungicides	603.3
3	Spider Insecticides	33.0
4	Nematicides	7.0
5	Soil Sterilizers	10.0
6	Summer Oils	3.0
7	Herbicides	11.0
8	Public Health Disinfectants	6.0
	Total	1846.9

Another study, carried out by students of the Faculty of Pharmacy in 2003/2004 on pesticides used in the growing of qat in five governorates (Al-Dale'a, Lahj, Ibb, Sanaa and Ta'izz), showed that there are 47 kinds of insecticides. The study revealed that Dimethoate is used by 53.4% of the qat growers who took part in the questionnaire in the governorates, except for Al-Dale'a where 92.2% of the growers use Monocrotophs. Because the necessary requirements during the spraying and harvesting processes were not met properly, and because the conditions of storage and handling were not healthy, several cases of poisoning were registered in the hospitals of the six governorates included in the study. Table (2) shows the increase in these cases from one year to another. Table (3) shows the number of cases registered in the hospitals of six Yemeni cities. Ta'izz hospital witnessed the most pesticide-poisoned cases, from both sexes and different age categories.

In his scientific study submitted to the workshop, Dr. Abdul-Rahman Alawi explained that most of the pesticides used in Yemen are of the toxic type of phosphoric and carbamide organic compounds. This means that they have poisonous characteristics, and that some of them are even internationally banned as they contain cancer-causing substances.

Dr. Abdul-Rahman referred to the efforts the Yemeni Republic exerts to implement Stockholm Convention on Persistent Organic Pollutants, stating the following:

- Yemen started its participation in the meetings of the international negotiation committee in charge of setting up an internationally binding act since the committee's third meeting held in Geneva from 6-11 September, 1999.
- Yemen also participated in the Johannesburg Meeting (4-9 December, 2000), where the treaty was signed.
- The Yemen Republic participated in signing the Stockholm Convention on Persistent Organic Pollutants (POPs) on 5th December, 2001.
- Yemen ratified the Stockholm Convention on 9th January, 2004.
- Yemen, represented by the Public Authority of Environment Protection, signed a memorandum of understanding with the UNEP, according to which Yemen was supported in carrying out a primary inventory of the sources of the Polychlorinated Biphenyl substances, Dioxins and Furans, and also in carrying out three workshops for parties concerned with such substances.
- Yemen has banned the use of the ingredients of such nine insecticides since 1990.
- In 2002, ninety-eight tons of soil contaminated with medium levels of chemical pollution including persistent organic pollutants was removed.
- In 2004, two hundred tons of soil with contaminated with low levels of chemical pollution, including persistent organic pollutants, was locally disposed of.
- The implementation of a scheme for preparing the national implementation plan, started at the beginning of December 2002.

Mrs. Asshar Bahaj stated that the Yemeni Society of Environment and Sustainable Development took advanced steps with regard to environmental awareness. It is the first national, non-governmental organization to discuss this subject and exert great efforts to render it successful, through co-operation with the National Plan Committee. The society tries very hard to make citizens and students at schools and colleges aware of the hazards of persistent organic pollutants.

Mr. Salim Abdullah, Director General of Environmental Surveillance and Evaluation at the Public Authority for Environment Protection, gave a general idea about the Stockholm Convention and persistent organic pollutants. He pointed out that persistent organic pollutants are organic compounds which basically consist of carbon and chlorine. They have certain physical and chemical characteristics, such as their resistance to disintegrate in different environmental surroundings, and

their ability to spread owing to their comparatively low vapour pressure. They are also poisonous, with little solubility in water and high ability to combine with fats.

Mr. Abdullah pointed out the role of non-government organizations, as follows:

A. Spreading awareness among sectors of the society that have to do with persistent organic pollutants

- Through carrying out workshops for different sectors of the society, and showing the hazards of persistent organic pollutants on the environment and on public health, their sources and means of protection from them.
- Conducting awareness seminars on regular basis.

B. Co-ordination with parties related to persistent organic pollutants for the elimination of materials mentioned in the appendix, or for working towards the elimination of the use and emissions of such substances, and lessening the emission of dioxins and furans.

C. Surveillance, monitoring and follow-up; i.e. surveillance and monitoring the sources of persistent organic pollutants, such as landfills, medical waste and how to dispose of them; incinerators (Alyagour, Alnoura, Aljuss); monitoring the use of D.D.T. if found on the market; monitoring transformers.

D. Reporting

- Submitting reports on the status of POPs in the surroundings of society.
- Submitting reports on managing the polluted sites in the surroundings of each society.
- Full co-ordination among societies in all areas.
- Exchange of information among societies concerned with persistent organic pollutants.
- Setting up an information network for the monitoring and follow-up of the implementation of the Convention on Persistent Organic Pollutants.

Mr. Abdullah also pointed out the efforts exerted by the Yemeni Republic for the implementation of the Stockholm Convention on Persistent Organic Pollutants.

- Engineer Farouq Zeid submitted a research paper on managing solid waste in Aden City.

- Professor Nada Al-Saeed of Aden University presented a scientific paper entitled “Persistent Organic Pollutants and the Amount of Chemicals in the Environment Worldwide”. The paper also tackled environmental problems in Yemen.

- More than 80 researchers, academics and representatives from non-government organizations and mass media took part in the workshop.

Recommendations

1. Reinforcing the control on toxic and cancer-causing substances, and enacting a mechanism or national and governmental strategy for banning the use of such substances in cultivating fruit and vegetables.
2. A pressing public opinion must be created to fight smuggling.
3. Participants in the workshops called for the fast removal of the landfill located in Dar Saad Directorate in Aden, away from the residential areas.
4. Accelerating the construction of a project for recycling waste in Aden, and monitoring the inputs of the persistent organic pollutants.
5. Issuing audio tapes and distributing them among school students and members of the society.
6. A comprehensive campaign should be organized to inform of the hazards of such pollutants, especially among the citizens.
7. Participants requested the Executive Bureau to monitor the pesticides sold on the market, and to carry out a monitoring role to eliminate chemicals used with fruits and vegetables and the pesticides sprayed on them.
8. Calling for the construction of safer methods of waste handling in hospitals to destroy the remains of the materials used in surgical operations without creating POPs or other toxic substances.
9. Calling for the activation of the Cabinet Law concerning the use of plastic bags.

