

Pop's and Obsolete Pesticides Newsletter

No 11, June 2006



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Aim

The aim of this newsletter is to disseminate information in a cost-effective way on the developments taking place in the area of POPs as implicated in the Stockholm Convention and other PTS of concern. It will cover, among others, the news on science and technology for disposal of obsolete stocks and remediation of POPs contamination which might be of interest for commercial exploitation both in developed and developing countries. Special emphasis will be given to bio-remediation related technologies which will benefit developing countries. The newsletter will not go into technical details of selected scientific publications but only highlight salient features for the benefit of the readers. One can [subscribe](#) and read IHPA Newsletter (2 times/yr free of charge).

Note from the Editors

The first half of the year is highlighted by two events; one is the ratification of the Stockholm Convention by a very important country, India that will have a great impetus to deal with containment / elimination of POPs. The other one is the 2nd meeting of the Conference of Parties (COP) in Geneva from May 1- 5. We are pleased to have the excerpts of the 2nd COP meeting and the presentation during the meeting by Dr. Mohamed Eisa, Programme Manager, POPs Unit, United Nations Industrial Development Organisation (UNIDO). Another development with regards to POPs Newsletter is that, the management of IHPA will make a special

arrangements with Eastern European/Balkans Region and the Central Asian Republics and the Russian Caucasus Regions for providing contributions to the POPs Newsletter on a regular basis. According to the estimates, this region has the highest obsolete stocks of pesticides including POPs. So progress in these regions means a great leap forward in terms of reaching the goals of Stockholm Convention. As a special feature we have added Part II to this issue giving two major projects approved under the Stockholm Convention. One in Slovakia implemented by UNIDO and another one in Moldova implemented by the World Bank.

1. Second COP Meeting of the Stockholm Convention held in Geneva, May 1-5, 2006

The second Conference of parties (COP) was held in Geneva from May1-5, 2006 with the participation of almost by 120 countries, UNIDO POPs unit Chief Mr. Mohamed Eisa made a presentation on UNIDO's efforts for implementation of Stockholm Convention on POPs as an Executing agency with Expanded Opportunities by the GEF Council. A MOU and a Financial Procedures Agreement was signed between UNIDO and the Trustees of the GEF granting UNIDO direct access to GEF resources of the Operational Programme on POPs (Ops#14). UNIDO projects cover the whole range of necessary project development activities from identifying and assessing sources of POPs, building capacity while taking part in the process audits, reducing generation of POPs, plant upgrading and retrofitting to the management and final disposal of POPs wastes. The type of projects covered in its portfolio has benefited from all GEF supports from project development facilities (PDF) A & B to medium -sized projects (MSP) and full-sized projects (FSP). According to Mr. Eisa UNIDO is now assisting in 40 countries in Africa, Asia, Latin America and Europe to develop National Implementation Plan (NIP) under Stockholm Convention for a total amount of GEF funds ca \$20 million. Recently UNIDO has embarked on a full sized project in Slovakia entitled Demonstration of Viability and Removal Barriers that impede adoption and effective implementation of available non-combustion technology for destroying POPs for a total budget of US\$20million (See item .1 , Part II, for more details).

The 2nd COP held in Geneva included in its agenda among others:

- DDT issues,
- Measures to reduce or eliminate releases from unintentional production under
 - BAT and BEP,
 - identification and quantification of releases.
- Implementation plans,
- Information exchange,
- Technical and financial assistance.
- Venue, date for the 3rd COP meeting

2. Introduction of PCB

Author: Dr. Mueller, IHPA Ambassador and Consultant.

PCB (polychlorinated biphenyls) belongs as well to the "dirty dozen". The owners of PCBs are different but the problems for the countries are similar. At the first stage PCBs must be identified and labeled. Proper storage must be installed in order to prevent further impacts to the environment. Finally PCBs must be disposed in special disposal facilities which are comparable to those for pesticides. Most developing countries and countries with economics in transition lack their own facilities and the only way is to transport to facilities in developed countries. These are more or less the same, whether pesticides or PCBs with some exceptions. This leads now, after the new

orientation of GEF and UN organizations, for bigger disposal projects to international tenders where both waste types are in one project. That makes sense as many activities and facilities can be used for both, such as interim storage in the country of origin, requirements for local stuff and equipment and national and international transportation. Such a project will start soon in Moldova (see item 2 in Part II). The tender for disposal foresees one contractor for both, over 1,000 tons of pesticides and over 1,000 tons of capacitors filled with PCBs and some tons of PCBs contaminated soil.

So far the similarities but let me now show the differences. Whereas pesticides are linked with agriculture, PCB is linked with electricity mostly (over 90 %). The consequence is that any pesticides project in any country will be followed up by the ministry of agriculture and any project with PCB will be followed up by either the ministry of industry or ministry of electricity (depends on the responsibility and existence in the country). In both cases there should be finally participation by the ministry or environment for coordination of the POPs activities. That works already quite well in a couple of countries.

Where are PCBs and why there are differences? PCB was used since many decades as insulating liquid and coolant in transformers and capacitors. The percentage of PCB in these liquids is between 50 and 70 % roughly and with different percentages on chlorine depending whether used for transformers or for capacitors. The difference is evident as these types of waste are electrical devices and most commonly cannot be packaged easily due to their size. Special requirements for international transportation are given by ADR (for road), IMDG (for maritime) and IATA (for air). These are special regulations on top of the normal requirements for hazardous "goods", only due to the size.

Usually the logistic companies that can provide transportation of pesticides should as well be able to provide any kind of transportation of PCB waste.

The biggest difference between pesticides and PCB is that pesticides are nowadays already "phased out", that means they are stored, good or bad, and there is no replacement needed. In case of PCBs that holds only for a minor quantity. Most of the PCB devices are still in operation and must be replaced by PCBs free units afterwards. That causes additional costs. Usually you can multiply the costs for disposal by 2 for the replacements.

Another problem is with the identification of potential cross contamination of oil filled transformers. Especially maintenance with the transformers causes this kind of contamination which is usually between 50 and 2,000 ppm. The bigger the transformers (by quantity of oil) are the lower the potential PCB cross-contamination. This contamination can only be identified by individual tests on the transformer oils.

There are some other differences but I leave it with the above mentioned ones.

Finally let me come back to the similarities of pesticides and PCBs. In both cases the identification requires very serious efforts and considerations. Potential owners, public and private ones, must be identified and must report reliable data. This requires a high education with the task teams that go for these data. Any consideration on national solution is based on these data. The better the data are the stronger the decision for or against a national solution. International independent consultants can and should assist here.

For more information you may contact me m.mueller@enviro-consultant.com directly or ask your UN organization for support.

Michael Mueller (www.enviro-consultant.com) IHPA Ambassador

3. Report on Hexachlorocyclohexane (HCH) isomers

IHPA Director Mr. John Vijgen has prepared a detailed report on the global situation regarding HCH isomers. Entitled "The Legacy of HCH isomer Production- Global Overview of Residual Management, Formulation and Disposal" it is the very first report of its kind giving the environmental aspects of lindane production world wide. According to the report, for every ton of lindane produced, up to 8-12 tons toxic HCH isomers (residuals) are produced and most of these ended up in the environment or dumped in different parts of the globe. According to the report world wide lindane production during 1950-2000 is estimated around 600,000 tons which translates to 4.8 million tons of HCH- residuals. Most of these are likely to be dumped or stored in different parts of the world with lack of information. This means that residual HCH isomers alone will dwarf the amount of obsolete stocks of POPs pesticides and PCBs implicated in the Stockholm Convention. The report while giving technical aspects of lindane production, deals in details two cases of HCH production in Basque Country of Spain and the legacy of HCH production in the Netherlands and how they dealt with the HCH residuals problem. In the Basque country of Spain alone in specially engineered landfill for 600,000 tons and base catalyzed dehydrochlorination (BCD) were used for 3500 tons of HCH at a total cost of 50 million Euros. The HCH contaminated land cleaning up in the Netherlands supposed to have cost 27 million Euros. Interestingly the report says that the revenue generated from lindane outweighed the amount spent on clean-up operations in both cases. Today HCH isomers are potential candidates for inclusion in the Stockholm Convention and likely to pose greater challenge.

The report in the form of annexes gives detailed report of world wide production/use of HCH-isomers and the registration status. The report contains breath taking pictures of lindane production sites and dumping of production waste of HCH isomers. The report gives a very easy reading for chemists, chemical engineers and environmentalists alike. The report can be downloaded at www.ihpa.info/library/access.php or the author can be contacted at john.vijgen@get2net.dk

4. Central and Eastern European Centre for Persistent Organic Pollutants.

Author: Prof. Dr. Ivan Holoubek, Director of RECETOX, Director of CEECsPOPsCTR and Co-editor of POPs Newsletter

The Czech Republic and Masaryk University, Brno and its Centre RECETOX(Research Centre for

Environmental Chemistry and Ecotoxicology) jointly established a centre called **Central and Eastern European Centre for Persistent Organic Pollutants (CEEPOPsCTR)**. Centre will be located in the area of new campus of Masaryk University in Brno, Czech Republic. The Centre is based on the experiences from the activities of the European POPs Expert Network and is common contribution of the Central and Eastern European Countries to the activities connected with the implementation of the Stockholm Convention (SC). The activities of the Centre will be covered and managed by RECETOX and Masaryk University Brno, Czech Republic. The CEEPOPsCTR will associate with country representatives, institutions and experts from CEE and any other countries in and out of CEE region.

CEEPOPsCTR will act as a scientific and technical bridge for EU, CEE and NIS countries and its activities will be also addressed to harmonize POPs initiatives at regional level. The Centre, after its establishment, will promote joint initiatives with the involvement of UN Agencies and UN Institutions operating in the field of environmental protection and recovery focused on POPs. Possible future partnership with UN/ ECE CRLTAP, UNEP Chemicals, UNIDO-CPC, ICS-UNIDO and other UN bodies and with European Union and other regional institutions are envisaged. Centre is opened for the co-operation with any country, institutions and experts out of the region.

The first scientific project of the CEEPOPsCTR is focused on the development and application of new type of so called passive samplers for collection of samples of ambient air and analysis of persistent toxic substances. This will be the contribution to the preparation of global monitoring of these compounds which is part of the activities connected with the Stockholm Convention.

The project is entitled "Determination of trends in the ambient air POPs concentrations in the Central and Eastern European Region using the polyurethane foam based passive air samplers (PAS_CEECs) and Pacific Islands"

The Project goals are:

1. Application of the polyurethane foam based passive air samplers as a tool for determination of the effectiveness of the measures of international POPs conventions (POPs under the Stockholm Convention and POPs Protocol of CRLTAP).
2. Filling the informational gap about the POPs ambient air levels in the CEE countries where the regular monitoring programs are missing. (Representative set of the sampling sites ranging from industrial to background sites will be selected in each country of this region, and first lasting five 5 months screening campaign will be performed in two steps - 2006 and 2007)
3. Evaluation of the temporal and spatial trends in the POPs ambient air concentrations in the countries of the Central and Eastern European region, Pacific Islands and Arabic countries. (Based on the results of the passive air sampling campaigns).
4. Establishment of the long-term PAS monitoring programme in this region. (in co-operation with the local institutions).
5. Dissemination of the knowledge about newly developed techniques for the sampling, chemical analysis, toxicological screening, and risk assessment. (Activities in the field of co-operation and education, workshops and practical training established in the last three years under umbrella RECETOX, and EU DG Research Centre of Excellence, will be supported and promoted by the newly established Central and Eastern European POPs Centre.)
6. Presentation of the activities of the Regional POPs Centre of the Czech Republic, RECETOX, Masaryk university, Brno, Czech Republic.

Project duration: February 2006 - December 2007

Financial coverage: RECETOX MU Brno, CR

Project time frame:

1. 2006 - Slovakia, Latvia, Estonia, Lithuania, Romania, Serbia, Bosnia and Herzegovina, Czech Republic + Fiji
2. 2007 - Poland, Belarus, Ukraine, Moldavia, Macedonia, Montenegro, Hungary, Slovenia, Czech Republic

5. Destruction of pesticides and chemical waste in Bishti i Pallës, Porto Romano, Albania

As a part of the remediation efforts of the Porto Romano environmental hot spot, 10 kilometres north of the Albanian port city of Durrës, 313,716 kilograms of heavy pesticides and toxic chemicals have recently been repackaged. Among the pesticides were large quantities of lindane (partly in an almost 100 percent pure form) and carbon disulfide. The chemicals were stored in warehouses in Bishti i Pallës that were freely accessible to the public. The original packaging was destroyed during repeated attempts to pillage the warehouses. The repackaged pesticides will be transported to Germany for destruction.



The remediation efforts of the Porto Romano hot spot are sponsored by the Royal Netherlands Embassy in Albania as part of its environmental cooperation programme with the Government of Albania. The subproject consisting of the repackaging and destruction of chemical waste in Bishti i Pallës was internationally tendered. The tender has been won by SAVA Sonderabfallverbrennungsanlagen GmbH of Germany. SAVA executed the subproject between 28 April 2006 and 1 June 2006.



The Porto Romano environmental hot spot is heavily contaminated due to the production of pesticides and tannery chemicals in a factory during the communist period in Albania. After the collapse of the communist system, the chemical factory in Porto Romano was abandoned. Since then, about 5,000 people have settled in and around the former chemical factory. The remediation efforts of the Porto Romano environmental hotspot aim to stop further exposure of man and nature to toxic waste.

More information can be obtained at:
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6. Events

6.1 One Day meeting on Risk Management and Risk Communication - organised by the Pest Management Group of Society for Chemical Industry (SCI London) on behalf of BCPC to be held on Wednesday 25th October 2006 in Glasgow.

- 09.00 Chairman's introduction
- 09.00 Ranking and responding to the chemical part of pesticide risks in modern agriculture - Professor Robert Krieger, Extension Toxicologist, Personal Chemical Exposure Program, Department of Entomology, Environmental Toxicology Graduate Program, University of California, Riverside, CA 92521, USA
- 09.30 Risk management decisions: risk assessment, the precautionary principle and public opinion - Dr Clare Butler Ellis, Pesticide Action Network UK, Development House, 56-64 Leonard Street, London, EC2A 4JX
- 10.00 Philosophy of hazard assessment of GM crops - Ms Annick Pleysier, Monsanto Europe, Tervurenlaan 270-272, B-1150 Brussels, Belgium
- 11.00 The development of risk management and risk communication in Europe - Dr Roy Nelson, Head of Communication, Loughry Campus, College of Agriculture Food and Rural Enterprise (CAFRE), Cookstown, Co. Tyrone, BT80 9AA
- 11.30 Regulatory perspectives of probabilistic risk assessment - Mr. Albrecht W. Klein, Director and Professor Environmental Risk Assessment and Management of Plant Protection Products, EU Active Substances Program, Federal Environmental Agency Wörlitzer Platz 1, D-06844 Dessau, Germany
- 12.00 Round table discussion
- 12.30 Lunch and posters
- 14.00 Chairman's introduction
- 14.05 Societal issues: risk communication and stakeholder participation - Dr Filip Cnudde, Marketing and Consumer Behaviour Group, Wageningen University, Hollandseweg 1, 6706 KN Wageningen, The Netherlands
- 14.35 Farm-specific pesticide risk management: The USDA-Natural Resource Conservation Service (NRCS) Approach - Dr Don Wauchope, 1002 Hall Avenue, Tifton, GA 31794, USA
- 15.05 Practical crop establishment methods for pesticide risk mitigation - Mr Mike Lane, Environmental Fate Section, Syngenta Ltd, Jealott's Hill International Research Centre, Bracknell, Berks, RG42 6EY, UK
- 15.35 Round table discussion
- 16.15 Close

6.2. One day workshop on NGOs Perspectives and Actions on Africa Stockpiles Programme in Nigeria.

June, 7, 2006 at the Conference Room, Federal Ministry of Environment, Surulere, Lagos, Nigeria.

The Conference is organized by the Nigerian Environmental Study Action Team with the support of the Pesticide Action Network (U.K.) The purpose of the meeting is to ensure that national stakeholders are able to undertake relevant activities over the course national disposal programme. The ASP is a continent wide effort, which aims to eliminate the stockpiles of obsolete pesticides, including POPs and help countries prevent future build ups of obsolete stockpiles.

7. News items

7.1. India ratifies the Stockholm Convention

As mentioned before, India, after a long delay has ratified the Stockholm Convention. This is great news that will benefit the Stockholm Convention but more so to India itself, in getting the required technical and financial assistance from International organizations that will serve the purpose of protecting human health and environment.

7.2. REACH and SAICM

This newsletter has been covering REACH (Registration, Evaluation, and Authorization of Chemicals) which is due to come onto force in Europe next year. The Chemical industry Association will be offering a help desk called "REACH Ready", to assist industry whether or not its substance comes within the scope of REACH, a ready reckoner to show how much it might cost to register a substance and find a suitable provider of services. Meanwhile the Strategic Approaches to International Chemicals Management (SAICM) was adopted in Dubai in early February. The legally nonbinding agreement was signed by 140 countries and sets out 300 activities designed to minimize the effects of chemicals on human and environmental health, Apparently one chemical

industry representative said that lack of enforcement could consign the good ideas (of SAICM) into the reality dustbin. According to him "self policing will work in Europe, but does not stand much chance in the developing world." But SAICM is a good start to bring awareness and safety at the door steps of governments, industries, public, NGOs and inter-governmental organizations. (Source: *Chemistry and Industry*, Feb 20, 2006, p.6).

7.3. US releases its Toxic Release data

The US- EPA claims that the amount of toxic chemicals released into the environment fell by 4% from 2003 to 2004 and since 1998 the toxic release declined by 45%. However, according to the National Environment Trust, the Toxic Release Inventory (TRI) shows that toxic releases increased in three major industrial sectors : paper, the food industry and from petroleum refineries. According to the EPA, the release of dioxin and its congeners decreased by 58%, mercury and its compounds by 16% and PCBs were down by as much as 92%. The mining industry accounted for 98% of the decrease. (Source: *Chemistry and Industry* may 2006, p10)

7.4. Endosulfan containers end up in tea shops as tea cups.



According to a newspaper The Hindu, Madras, that some tea shops in South India use pesticide tins for preparing tea in tea shops and the use is increasing. Use of endosulfan as pesticide has created heated debates in several states in India but none expected that it will appear in tea shops for serving hot tea. One should note that endosulfan could become a potential candidate for consideration for inclusion in the Stockholm Convention.

Figure 1. Endosulfan container modified for use as tea cup.

(Source: *The Hindu*, 15/02/06)

7.5 Erstwhile industrial sites go under the hammer

In Bombay (now Mumbai) it is real estate boom time and any vacant land is like gold even when poisoned by chemicals. Plush residential and commercial complexes, shopping malls are coming up in on erstwhile industrial sites, some heavily contaminated with toxic waste. Apparently builders, who have bought the sites from industrialists, can't be bothered -there is no effort to study contamination levels or take up remedial measures. The Development Control Regulations, 1991, do not prohibit residential or commercial complexes on former industrial sites. There is no record on the history of these sites. Down to Earth (DTE) looked at two sites and said one was a pesticide factory and another site produced sodium bichromate and potassium bichromate. In 1941 it produced 500ton tpd and went up to15,000 tpd in 2003. The laboratory Results dt December 1, 2004 apparently showed carcinogenic hexavalent chromium at 2.4ppm ie. 50 times higher than permissible limit. The site had process waste of 60,000 tons all termed as hazardous waste. According to DTE some wastes have been treated but major portion is still lying in the site. On the pesticide factory site where residential complex is likely to come has no proper records of pesticide waste contamination. (source: *Down to Earth* December 15, 2005,p7). It all goes to show that the Stockholm Convention and also SAICM rightly give importance to public awareness, stakeholders involvement, capacity building in policy/legal frame work, identification of POPs contaminated lands, classification and land remediation based on risk assessment in consultation with all stakeholders. It is needless to say that past experience has shown that decontamination after development will be very painful and expensive.

7.6 Tajikistan Organizes activities on public awareness raising on the national level

Tajikistan is now in full swing with the implementation of the national implementation Plan for the Stockholm Convention and works intensively to bring awareness on POPs problems and about the activities of the National Coordination Committee (NCC) to the population and have been presented in the mass media such as the newspaper "Sadoi Mardum (Voice of people)"; in the Internet-paper "Avesto"; newspaper "Navruzi Vatan, which is issued within State Committee on Environment Protection and Forestry of Republic Tajikistan; republican newspaper "Digest"; and also in rubric "Vsyakoe raznoe" of the "For Earth" NGO (Electronic News Service). The information support of project is realized through the portal <http://www.caresd.net>, which was created by technical and financial support of UNDP.

Also a video-film on POPs problems in Republic Tajikistan has been made in Russian language and will be translated also in English. In secondary schools were conducted the elucidative measures. Participants of the measures asked about preparation of informational booklets by NCC in more number. However, the volume of edition is rather small. In this connection, it was decided to increase the number of edited booklets. 500 copies of information bulletin in Tajik language "Ifloskunandahoi ustuvori organiki" ("Persistent Organic Pollutants") was issued for dissemination in secondary schools of cities, regions and administrative districts. It was decided that other newly prepared booklets will be multiplied and presented to elder schoolchildren and public community.

In the coming months the following activities on awareness will take place:

Determination of activities in sphere of information exchange, education and public awareness rising; conducting of seminars "Public awareness raising in sphere of POPs problem in Republic Tajikistan" in Horog city (GBAO), Rasht group of districts, demonstration of video-films on following subjects: "POPs and their effects on human health", "What are pesticides?"; updating of Informational Ecological Stands with POPs information in the regional institutions. Further it is planned to conduct seminars with participation of customs officers of Tajikistan in sphere of strengthening control of plant protection preparations imported to the republic.

Herewith Tajikistan shows its strong commitment to fulfill the requirements of the Stockholm Convention and involve society in the solution of the POPs problems.

Abdusalim Juraev - National Coordinator of Enabling Activities for the Development of a National Plan for Implementation of the Stockholm Convention on POPs in Tajikistan, email: office@pops.tj

IHPA Newsletter June 2006: Part II

Two major projects under the Stockholm Convention have been approved.

Project 1: UNIDO signs US\$20 million UNDP/GEF/UNIDO POPs project

On February 16, 2006, HE Mr. Laszlo Miklos, minister for environment of the Slovak Republic and Mr. Kandeh Yumkella, UNIDO Director General signed an agreement on a US\$ 20 million GEF funded demonstration project for the destruction of POPs waste, using non-combustion technologies. In the project UNIDO will execute all project activities and in co-operation with the Ministry of Environment of the Slovak Republic. UNDP will be responsible for monitoring and evaluating the project via its regional centre in Bratislava. UNDP will also co-ordinate the roles of all stakeholders' activities including public-private partnership and civil society involvement. The project will be implemented over six years focusing on destruction of PCBs using non-combustion technologies. More than half of the US\$20 M budget is provided by the GEF and the rest by the private sector, the Slovak Republic to the tune of US\$ 8.9 million and several civil society organizations, UNIDO, and UNDP. (Source: UNIDO Newsletter 1, May 2005). The project will put in place a technology (non-combustion) to destroy 1000 tons/year of PCB and other POPs over period of seven years. Slovakia has taken the leadership role in Central and Eastern Europe and will host foreign officials and representatives of civil society who wish to travel to Slovakia to observe the process of POPs waste destruction. Sustainability of the project is assured by the vast amounts of stockpiles of POPs in this region to be destroyed by non-combustion technology. Replicability is assured through a number of specific activities including development of a Central and East European approach to the use of non-combustion technologies, implementation four work shops in different regions, dissemination of information and distribution of Operational manuals. (for details see <http://www.unido.org/doc/4977#story1> or contact Mr. Mohamed Eisa, Programme Manager meisa@unido.org)

Project 2 : Moldova POPs Project



Persistent Organic Pollutants Stockpiles Management and Destruction Project

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The aim of this paper is to disseminate information about Moldova experience in the field of the Stockholm Convention on Persistent Organic Pollutants (POPs) and the 9th International HCH and Pesticides Forum which is going to be held in September 2007 hosted by the Republic of Moldova. This paper will not describe the technical issues related to POPs but only the achievements of Moldova in the field and the results of the Conference launching the third Project in the field of Stockholm Convention. Further details about Moldova POPs Project could be found at www.moldovapops.md.

Note from the Authors:

Mounting evidence of health and environmental damage has focused the attention of the international community on a category of substances referred to as Persistent Organic Pollutants (POPs). Some of these are used as pesticides, while others are industrial chemicals. POPs are also generated unintentionally as byproducts of combustion and industrial processes. Like many other countries in the region, Moldova has severe public health and environmental problems linked to the intensive pesticides use in the past. The stockpiles of obsolete pesticides are a continuous threat to the health of thousands of people in Moldova. The country has also accumulated large amounts of PCB oils and PCB-contaminated equipment in the energy sector presenting high risks to the environment and public health. At the same time, Moldova lacks credible evidence about the current releases, the degree of environmental contamination and health impacts due to unintentionally produced POPs and PCBs.

1. Conference launching the Persistent Organic Pollutants Stockpiles Management and Destruction Project in the Republic of Moldova

Conference launching the Persistent Organic Pollutants Stockpiles Management and Destruction Project in the Republic of Moldova took place on May 22, 2006. The objective of the Conference was to launch the Project activities and inform the institutions involved in the technical aspects of the activities. The role and responsibilities of each party to the Project was determined, and the issues on cooperation development between all stakeholders participating in POPs' impact reduction in Moldova discussed. The Project was prepared in 2005 by the Ministry of Ecology and Natural



Resources as part of the activities under the Grant for Preparation of the Sustainable Persistent Organic Pollutants (POPs) Stockpiles Management Project. It is a follow-up of the Enabling Activities for the



Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) Project implemented in 2002-2004, and its focus is the realization of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants. The GEF Grant of \$US6.35 million for the Persistent Organic Pollutants Stockpiles Management and Destruction Project was

approved by the World Bank's Board on December 15, 2005. The Grant Agreement between the International Bank for Reconstruction and Development and the Government of the Republic of Moldova was signed on February 9, 2006. The Project became effective on March 9, 2006.

The Project is co-financed by the Government of the Republic of Moldova in an amount of \$US3.72 million, and envisages the implementation of a range of activities amounting to \$US12.6 million, including with \$US2.53 million from international donors for similar activities under some other projects implemented in Moldova.



2. GEF/WB "Persistent Organic Pollutants Stockpiles Management and Destruction Project"

The overall objective of the project is to protect the environment and human health by safely managing and disposing of stockpiles of POPs contaminated pesticides and PCBs. The project is aimed on sustainable POPs stockpiles management as well as on strengthening of the regulatory and institutional arrangements for long term control of POPs and other toxic substances in line with the requirements of the Stockholm Convention and other related conventions and protocols ratified by Moldova. The project will contribute to both national and global objectives. On the national level, it will support implementation of the country's Economic Growth and Poverty Reduction Strategy Paper, which has several references to POPs, and its action plan proposes interventions in the area of obsolete pesticides and PCBs, along with the recognition of the need to strengthen institutional capacity in this area. The implementation of proposed activities would provide many local benefits by reducing the impact of POPs on public health and environment. The number of Moldovan people likely to directly benefit from the project is estimated to be over 150,000 people living in the vicinity of POPs sites (it should be also noted that the number of people professionally and directly exposed to pesticides at work has been estimated to drop from 34,700 in 1993 to 8,800 in 2002). The project will reduce opportunity costs that are lost when resources are diverted to management and replacement of POPs as well as it will lower economic losses associated with: land contamination (lost productivity); health impacts (healthcare costs, lost labor); impacts on livestock (death or illness) and crops (crop losses or contamination); degradation of natural resources (water and soil contamination); and wildlife impacts (poisoning of natural pest predators.)

The global benefits of the project include the following:

1. reduced pollution of water bodies;
2. reduced pesticides and PCBs entering regional and global food chain through soil contamination;
3. reduced impact on poor; reduced impacts on land, biodiversity, transboundary watercourses and international waters;
4. compliance with international conventions

The Global Environment Facility (GEF) is one of the main institutions which support the project financing based on the one of its focal areas - to eliminate persistent organic pollutants. The Project will be also co-financed by the Government of the Republic of Moldova and over international donors for similar activities.

The above mentioned project will be implemented through the World Bank and the Project Management Team established within Ministry of Ecology and Natural Resources will be responsible for project country implementation.

The World Bank Group is one of GEF's implementing agencies and supports countries in preparing GEF co-financed projects and supervises their implementation. As a GEF Implementing Agency the Bank has a responsibility to help its client countries achieve the global environmental objectives that are supported by the GEF. The GEF recently became an interim financial mechanism of the Stockholm Convention and this Project will contribute significantly to achieving the objectives of the corresponding GEF Operational Program for Reducing and Eliminating Releases of Persistent Organic Pollutants (OP14).

3. Project Components

The project consists of three components: (1) Management and Destruction of POPs; (2) Strengthening the Regulatory Framework and Capacity Building for POPs Management; and (3) Institution Strengthening and Project Management.

Within the first component two sub-components will be financed: (i) Destruction of Stockpiles of POPs Containing and Contaminated Obsolete Pesticides and (ii) Management of PCBs and Destruction of Obsolete Capacitors Stockpiles. The first sub-component will finance repackaging, shipment and destruction by incineration of approximately 1,150 tons of stockpiled obsolete pesticides from 10 districts having the highest risk for threats to environment and human health. The second sub-component will finance: (i) a detailed inventory of PCB-containing or contaminated

equipment, (ii) Destruction of a stockpile of obsolete capacitors; and (iii) feasibility study of site clean-up at Vulcanesti Substation

Strengthening the Regulatory Framework and Capacity Building for POPs Management component includes actions for modernization of current legislation specifically related to the Stockholm Convention and incorporation of provisions for establishing a broader chemical safety approach in the country based on EU directives. Full transposition of all relevant EU legal acts is expected to be achieved.

The third project component will finance the institution strengthening and project management support. This component will strengthen the Ministry of Ecology and Natural Resources capacity for POPs management and includes activities such as: (i) POPs Information Management System for POPs; (ii) POPs Monitoring Network; (iii) Identification of POPs residuals and Mapping of Polluted Areas; and (iv) POPs Awareness and Educational Activities.



4. The 9th International HCH and Pesticides Forum

At the 8th International HCH and Pesticides Forum in Sofia the Republic of Moldova expressed its willingness in hosting the 9th International HCH and Pesticides Forum for Central European and Eastern European, Caucasus and Central Asia Countries. Thus the 9th International HCH and Pesticides Forum will to be held in September 2007 in Chisinau, the Republic of Moldova under the auspicious of the Ministry of Ecology and Natural Resources and the Project Management Team as the Secretariat of the Forum.

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