



IMPROVEMENT OF CHEMICAL SAFETY IN RURAL ARMENIA

AWHHE and ARNIKA mark the tenth anniversary
of the Stockholm Convention on Persistent Organic Pollutants

Outcome of the International Conference, 31 May 2011



EUROPEAN UNION

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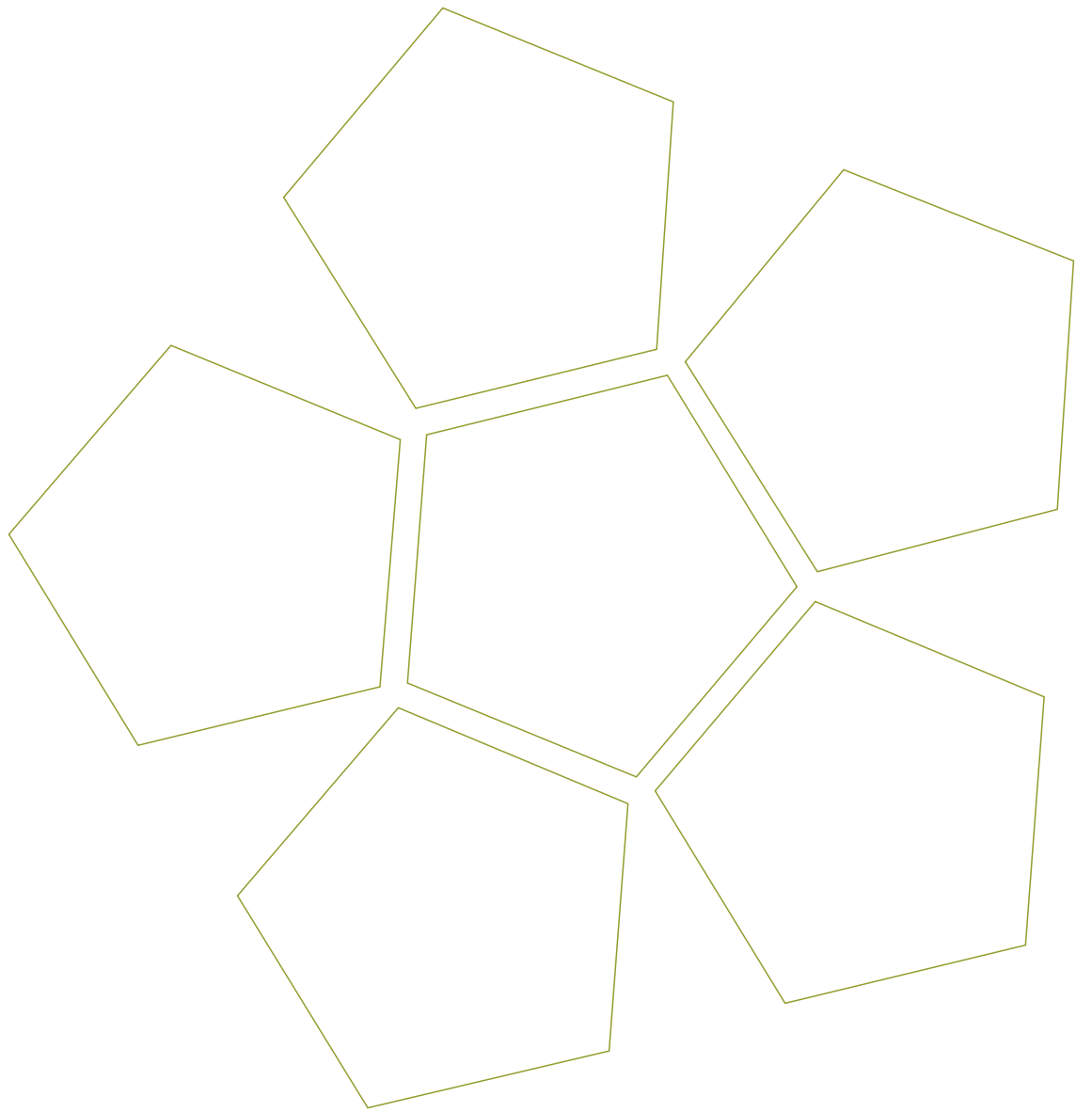


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Armenian Women for Health and Healthy Environment (AWHHE)



Armenian Women for Health and Healthy Environment (AWHHE) is a non governmental organization (NGO) and a national network of focal points working for sustainable development, protection of human health and environment and poverty reduction in close partnership with international environmental and health networks such as Women in Europe for a Common Future (WECF), International POPs Elimination Network (IPEN), Women for Water Partnership, Health Care Without Harm, Global Anti-Incineration Alliance, Pesticide Action Network Europe and Health Environment Alliance.

The AWHHE NGO was founded in 1999. The mission of AWHHE is to explore the issue of environment pollution in Armenia, to advocate the human right to live in healthy environment, to promote the decrease of the risks of environmental harmful impacts, including climate change, on human health, as well to promote healthy lifestyle focusing especially on children and women. Particularly the concern for health and safety of children and future generation is an important motivation for women to become catalysts of a change.

AWHHE promotes solution to the problems related to environmental health, health risks, through advocacy, education and information campaigns; provides independent monitoring and investigations on water supply management and sanitation as well as chemical contamination and contamination of polluted sites; lobbies the decision-makers to find sound solutions; contributes to capacity building of rural communities; strengthens participation of women in decision-making at the local and national levels; promotes implementation of the Stockholm Convention on the Persistent Organic Pollutants (POPs) and ratification of the Water and Health Protocol in Armenia; publishes popular and scientific articles; creates and disseminates public education and information materials; participates at national and international conferences, forums and processes like Strategic Approach to International Chemicals Management (SAICM), International Conference on Children's Health and Environment, Children's Environmental Health Action Plan for Europe, Environment for Europe and Integrated Water Resource Management.

Vision: Healthy Environment For Our Children - Healthy Generation For Armenia

Arnika



Arnika is a Czech non-governmental organization uniting people seeking better environment. We believe that natural wealth is not only a gift, but also an obligation to save it for future. Arnika was established in 2001 and since its foundation has become one of the most important environmental organizations in the Czech Republic. We base our activities on three pillars: engaging public, professional arguments, and communication with media. Our activity would not be possible without hundreds of sympathizers and supporters, whose help assisted Arnika to become a strong and stable non-government organization. Arnika's work consists of the following programmes:

Center for Citizens' Support – we support public in decision-making on the environment

Nature Conservation – we protect biodiversity and value of water and watercourses

Toxics and Waste – we reduce amount of toxic substances and waste

Since its establishment, Arnika focuses on international cooperation. We are members of the following organizations and networks:

- International POPs Elimination Network - IPEN
- Health Care Without Harm - HCWH
- Global Alliance for Incineration Alternatives - GAIA
- Zero Mercury Working Group - ZMWG
- European Environmental Bureau - EEB
- European Rivers Network

Scaling up Experience in Improvement of Chemical Safety to Contribute to Poverty Reduction in Rural Armenia



Project partners: The Armenian Women for Health and Healthy Environment (AWHHE) and Arnika – Toxics and Waste Programme (Arnika)

Project duration: January 2010-June 2011

Location: Artashat, Masis - Ararat marz and Echmiadzin -Armavir marz

Funded by: The European Union (major donor); the Global Environmental Facility through UNDP; the Global Greengrants Fund; IPEN; WECF; the Czech Development Agency; and the OSCE Office in Yerevan.

The Issue of POPs in Rural Armenia

The problem of POPs has existed in Armenia since 1980es, when annually 450-500 tons of pesticides were used in agriculture. In single years the load of pesticides application exceeded the average level of the former Soviet Union by 20 times and made up 9 kg/ha. Ararat and Armavir marzes are among the most vulnerable territories in term of pesticides load. The problem of POPs in Armenia is connected with wide application of chlorine organic compounds, as well as with accumulation of obsolete pesticides, the major part of which was either left in warehouses or buried in an unorganized manner. The only burial site of obsolete pesticides (built in 1982) contains more than 500 tons of obsolete pesticides of different groups among which 60 % are persistent compounds: DDT, HCCH, etc. Lack of information on toxicity of pesticides and their hazard for health and the environment is explained by the fact that after the collapse of the former Soviet Union the villager remained alone with his problems. The issue of POPs is aggravated by the following factors:

- lack of information on obsolete pesticides hazard among civil society;
- low NGOs awareness on the problem;
- absence of national NGOs work coordination;
- low public awareness of the problem;
- low involvement of the public in policy making processes;
- lack of information on financial opportunities for NGOs.

Project Goal:

To contribute to chemical safety provision in Ararat and Armavir provinces in Armenia through strengthening democracy transformation in these regions for poverty reduction.

Main project outcomes:

- A network of environmental NGOs interested in Chemical safety issue was established along with a SAICM informational public center
- Trainings& Seminars were organized to improve the capacities of NGOs and local communities for effective engagement in policy making processes; a group of agricultural advisors was trained and certified on negative impact of POPs and toxic chemicals on human health and the environment.
- Three farmer field schools were created.
- A webpage for the NGOs network is created on the AWHHE website that contains essential documents both in English and Armenian languages.
- A list of recommendations for effective actions towards improvement of chemical safety was developed.
- Advocacy campaign was organized to make a pressure on improvement of chemical safety in Armenia through organization of round tables, meetings and an international conference.
- Investigation of hot spots helped to build missing data basis on contaminated sites.
- Information and media campaign was organized to raise public awareness of the issue; a film around the problems was produced.



Scaling up Experience in Improvement of Chemical Safety to Contribute to Poverty Reduction in Rural Armenia



Startup meeting of the project “Scaling up Experience in Improvement of Chemical Safety to Contribute to Poverty Reduction in Rural Armenia” – 2010

“Pesticides. Are they really necessary?” film presentation with participation of the Head of EU Commission Delegation Raul de Luzenberger, UNDP Deputy Resident Representative Dirk Boberg and the President of AWHHE NGO Elena Manvelyan – 2010



Round table entitled “Civil Society Concerns on Hot Spots in Armenia” - 2011

The employee of AWHHE NGO Lilik Simonyan comments on the situation in the burial site



Sampling from the Jrrarat store of obsolete pesticides by Zuzana Honzajkova - 2010

International Conference to Mark the Tenth Anniversary of the Stockholm Convention



On 31 May 2011, the Toxics and Waste Programme of the Arnika Association and the Armenian Women for Health and Healthy Environment NGO (AWHHE) in partnership with the OSCE Office in Yerevan organised an international conference to mark the tenth anniversary of the Stockholm Convention on POPs. The conference was also an occasion to present the results of a joint EU funded project entitled “Scaling up Experience in Improvement of Chemical Safety to Contribute to Poverty Reduction in Rural Armenia”.

In October 2003, Armenia ratified the Stockholm Convention. The Convention is a global treaty to protect human health and the environment from highly dangerous, long-lasting chemicals by restricting and ultimately eliminating their production, use, trade, release and storage. It also provides guidance and facilitates the exchange of information on environmentally sound management of wastes -- a global treaty to protect human health and the environment from highly dangerous chemicals. To help Armenia in implementing the Convention, the EU-funded project is focused on assisting rural communities to implement sustainable agriculture by offering technical solutions to eliminate contamination of several hotspots by obsolete toxic pesticides (including POPs). The organizers presented the results of analysis of 95 samples of air, soil and other solid matrices obtained at the five sites suspected to be POPs hotspots.



International Conference to Mark the Tenth Anniversary of the Stockholm Convention





The Conference: abstracts from presentations and discussions

Nubarashen Burial Site: Emergency Continues

Lilik Simonyan,
AWHHE, Armenia

The Nubarashen Burial Site is located between villages Voghchabert and Geghadir at about 800 meters from the cottage settlement and the village of Moushakan and belongs to the Yerevan administrative area. The emergency situation caused by its destruction can pose enormous threat to human health and the environment. AWHHE have raised this question before the Government, and as a result activities were carried out according to the Government decrees (laboratory research, geophysical activities, renewal of drainage, fencing of the burial site territory, drainage of mineral waters from springs that are located in the main part of the landslide). Nevertheless, the activation of the landslide in the adjacent area of the burial site has led to new crumbling. It testifies that the measures accomplished in the burial site are not sufficient to solve the problem of security of the mentioned site. The further activation of landslides can seriously threaten the contamination of water of the nearby area of the burial site and the trans - boundary waters. The emergency situation requires a lot of work, national and international substantial efforts and financing to get the final solution to guarantee the safety to the population living around this site and to prevent further disaster. There is a need to carry out the epidemiological survey to asses the long term and short term impacts from the risks related to the obsolete pesticides threat, to raise the awareness of local population about the risks and how to avoid them.



The burial site of obsolete and banned pesticides from the hill - 2007



Consequences of the landslide in the area lying down the burial site – 2006

Landslide phenomena near the burial site of pesticides – 2007





New findings: Final evaluation of sampling at 5 POPs hot spots in Armenia

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Republic
(summary based on the reports of experts Marek
Sir, Zuzana Honzajkova and Alice Dvorska)

The data presented and discussed in this report were obtained during a field visit and environmental sampling campaign conducted in Armenia in July 2010 and additional subsequent sampling conducted in autumn 2010. Both sampling campaigns represent an important part of a joint project of the Czech not-profit nongovernmental organization Arnika Association and the Armenian non-governmental organization the Armenian Women for Health and Healthy Environment (AWHHE). The main goal of the project is to help rural communities in Armenia to implement sustainable agriculture and eliminate the danger of chemical pollution in the Ararat and Armavir regions.



Like all the republics of the former Soviet Union, organochlorinated pesticides were widely applied in Armenia until the ban in 1980s. Subsequently, the problem of areas contaminated by organochlorinated pesticides (agricultural lands, former pesticide storehouses, pesticide burials, dump sites, etc.) emerged.

The field visit in July 2010 was conducted by members of the Arnika Association, independent scientists and members of AWHHE. Sampling of air, soil and other solid matrices was conducted at five sites suspected to be persistent organic pollutant hot-spots, i.e. one pesticide burial site (Nubarashen), three former pesticide storage sites (Jrarat, Echmiadzin and Masis) and one dumpsite containing copper production waste (Alaverdi). Later, more air samples as well as biota samples were taken at the five sites by members of AWHHE. A total of 57 samples was obtained and analysed on the content of organochlorinated and other pesticides and polychlorinated dibenzo-p-dioxines and furanes. An inspection on the state and possible risk receivers (inhabitants, workers) at the sites was conducted, too.

The recommendations given further in this text are underpinned by the partly very high contamination by persistent organic pollutants found at some spots of the investigated sites.

The extent of the study was limited by financial, temporal and personal resources. A risk analysis supported by additional sampling where necessary should characterise and quantify the risks posed to humans and the environment by the pollution at the sites and further specify areas for decontamination and define the extent of decontamination. The lifetime exposure, and where appropriate the acute exposure of consumers to pesticide residues via food products, especially eggs in Echmiadzin and Jrarat, should be evaluated and the consumers immediately informed about the high POP levels found in their food.



Summarized new findings:

- **In general:** 42 pesticides out of 222 other than OCPs were detected in measurable amounts; new data on dioxins from Armenian environment (Nubarashen, Echmiadzin, Alaverdi); new obsolete storage of obsolete DDT

Major new findings by hot spots:

- **Nubarashen:** high dioxin and dioxin-like substances and non-OCPs pesticides contamination outside the burial site; air transport of contaminants
- **Jrarat:** very serious contamination by DDT and other OCPs; almost clean DDT in damaged bags; spread of the contamination via air and found in chicken eggs
- **Echmiadzin:** very serious contamination by DDT, OCPs as well as other pesticides and PCDD/F + DL PCB; spread of contamination (chicken eggs, water, soil)
- **Masis:** very serious contamination by HCHs and other than OCPs pesticides; spread of contamination (soil, water).
- **Alaverdi:** high levels of PCDD/F + DL PCB in industrial wastes; spread of contamination (soil); high percentage of metals, namely of copper, lead, zinc, cadmium, chromium and arsenic, was found in waste and slag from the metallurgical plant; high concentrations of heavy metals were found also in the soil sample taken in the distance ca 20 m from the disposal site, out of the actual disposal site area.



Stockpiles of obsolete pesticides in Echmiadzin store - 2010

Major recommendations:

- to take measure in order to prevent further spread of contamination;
- repackage obsolete pesticides (especially in Jrarat) and store them at safer place (best option centralized safe storage – not necessary expensive);
- put fences around contaminated areas;
- stop to use contaminated buildings as storage for currently used fertilizers and pesticides;
- immediately prevent people entering at least parts of the areas of the Jrarat, Masis, Echmiadzin and Nubarashen sites and stop the spread of contamination by persistent organic pollutants, which was pronounced very strongly especially in Jrarat;
- where people have to enter these and the other sites and rooms, they should be consequently reminded to wear personal protection equipment;
- alternatives for the consumption of eggs especially in Echmiadzin and Jrarat should be discussed;
- to make an inventory of all such hot spots in Armenia is necessary, and to address their contamination requires centralized action.



Children's health safety - why to avoid PVC toys

Vendula Krcmarova,
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PVC (or vinyl) plastic is used to manufacture many products, including food wraps, children's toys and infant products. The whole lifecycle of PVC, from manufacturing to use and disposal, uses and releases hazardous chemicals such as chlorine, mercury and other heavy metals and phthalates. The production of PVC and its feedstocks, vinyl chloride monomer and ethylene dichloride results in the release of hundreds of thousands of pounds of toxic chemicals into the environment each year. The manufacture and disposal of polyvinyl PVC also involves the exposure of workers.



As part of municipal or medical waste, PVC produces dioxins (= polychlorinated dibenzo-p-dioxins and dibenzofurans), when it is burned. Dioxins are one of the most toxic substances known, and has been found to cause cancer and reproductive disorders.

To make PVC suitable for using in toys, it must be mixed with plasticizers and stabilizers - heavy metals such as lead, cadmium, phthalates or organic chemicals containing tin. Because these chemicals are not tightly bound to the plastic, they can enter children's organism, especially when the children chew or suck on the toys. These chemicals may be linked to learning disabilities, reproductive and development defects or behavior problems.

Children put things in their mouths and spend a lot of time on the floor and ground, so they may ingest chemicals from toys, dirt and dust.

Although phthalates vary in toxicity, the most widely-used phthalates such as DEHP have been linked in studies to a variety of illnesses, including reproductive damage and damage of kidneys and liver. Some studies suggest that phthalates can interact synergistically with other common chemical contaminants and may play a role as endocrine disruptors, can affect blood pressure and may cause asthma (especially phthalates released from PVC flooring). Phthalates can migrate into food from plastic food wraps. Humans can be widely exposed to phthalates also through the medical devices made of PVC (e.g. catheters, intravenous and blood bags).

In EU, three phthalates (DEHP, BBP, DBP) - are totally banned for use in any toys or childcare articles where their concentration exceeds 0,1 % by mass of the plasticized material. The three other phthalates (DINP, DIDP and DNOP) are banned, for the same concentrations, in toys and childcare articles which children could put in their mouths whether or not they are intended for this use. The Commission regularly reviews the prohibition measures to bring them into line with developments in scientific knowledge. This legislation makes it possible to restrict the marketing of a product or to withdraw it quickly if it presents a serious health risk, thanks to the Community rapid information system (RAPEX).

Arnika also tested a range of PVC plastic toys, air cushions, raincoats or some school tools (e.g. erasers or pen case) in Czech Republic and testing showed that some of them contained dangerous chemicals.

Since PVC products are common, the immediate goal should be to change the composition of products that especially children contact directly. Another way is to give the buyers information and let them make their own educated choices regarding alternatives to PVC.



Alternative technologies for destruction of POPs waste

Alan Watson,
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Arnika – Toxics and Waste Programme, the Czech Republic

In many parts of the world stocks of legacy persistent organic pollutants (POPs) - e.g. polychlorinated biphenyls (PCBs), and organochlorine pesticides - are posing threats to human health and the environment. These POPs wastes must be destroyed or irreversibly transformed by sustainable methods that, to the greatest extent achievable, meet the following criteria:

- An effective destruction efficiency of 100% - taking into account all inputs and outputs (gaseous, liquid and solid);
- Complete containment of all process outputs to enable testing - and reprocessing if necessary - to ensure an effective destruction efficiency of 100%;
- No uncontrolled releases from the process.



These criteria are not met by waste incineration and/or hazardous waste co-incineration in cement kilns which are widely used to destroy POPs waste stocks so far. Releases from waste handling together with unintentionally-formed products of incomplete combustion released to air and contained in residues from hazardous waste incinerators can lead to contamination around the incinerator plant and add to reservoirs of these by-products, depending on the technology used, facility operation conditions and the management of solid residues (Weber et al., 2008). The released toxic by-products, e.g. PCDD/Fs (known human carcinogens), can enter the food chain (Malisch et al., 1999). Several such cases are described in the scientific literature (Goovaerts et al., 2008; Holmes et al., 1994, 1998; Kim et al. 2006; Lovett et al., 1998).

Our presentation will focus on non-combustion technologies as suitable alternative to POPs wastes incineration and co-incineration. These technologies use physical and chemical processes of converting POPs wastes to less harmful substances. There are non-combustion, high-temperature technologies operating now at a commercial scale in one or more countries, where these technologies are licensed to destroy POPs stockpiles. Four of them are briefly described here. Further, a destruction technology that operates under mild reaction conditions (room temperature and pressure) is also presented.

Some of the technologies which will talk about are following:

Gas Phase Chemical Reduction (GPCR)

This technology involves the gas-phase chemical reduction of organic compounds by hydrogen at temperatures of 850°C or greater and low pressure (Eco Logic, 2002).



Base Catalysed Decomposition (BCD)

This US EPA developed process consists of two separate processing steps: first indirectly heated thermal desorption at temperatures of 200-400°C is used for the decontamination of treated media, then the POPs in form of pure chemicals or concentrates obtained by the desorption are destroyed by a chemical reaction. The dehalogenation occurs when selected chemicals including sodium hydroxide (a base) are mixed with the condensed contaminants and heated to 236°C in a reactor.

Super Critical Water Oxidation (SCWO)

In supercritical water, organic pollutants become highly water-soluble and react rapidly with added oxidants. Final decomposition products are carbon dioxide, water and mineral acids and salts. The supercritical phase of water occurs under high temperature and pressure conditions, e.g. 374°C and 24-28 MPa (EPA, 2005; Rahuman et al., 2000; Veriansyah et Kim, 2007). Effluent gases do not contain nitrogen oxides, acid gases, or particles and carry less than 10 ppm carbon monoxide (Environment Australia, 1997). SCWO is suitable for the treatment of soil, sludge and liquid wastes contaminated with e.g. PCBs and pesticides as well as hazardous military wastes in low or high concentrations.

Sodium reduction

This transportable or fixed technology has been used widely for the in-situ removal of low to high contents of PCBs from transformer oils. The basic principle is the reduction of the PCBs with dispersed metallic sodium in mineral oil which leads to the final products of non-halogenated biphenyls, sodium chloride, petroleum based oil and water. The capacity for treating transformer oils has been reported to be 15 000 litres per day.

Ball milling/ Mechanochemical dehalogenation (MCD)

Ball mills are mechanochemical dehalogenation reactors for the destruction of PCBs and other organic chlorinated pollutants to their parent hydrocarbons in high yields. The reductive dehalogenation occurs in the presence of an alkali metal and a low acidic hydrogen source. It can be applied to contaminated materials as well as highly concentrated or pure chemicals regardless of their state. The pollutants are eliminated directly inside a contaminated material (Birke et al., 2004; UNEP, 2004). Although the mechanochemical degradation is performed at low temperatures, inside the milled material temperatures up to several thousand degrees Celsius occur when a grain collides at high velocity with a solid surface (Heinicke, 1984). The final product powder may require further treatment (IHPA, 2008).

We will also discuss potential problems and environmental impact assessment issues related to non-combustion technologies.



Can the treaty solve the problem of mercury contamination?

Jan Šamánek,
Arnika – Toxics and Waste Programme, the Czech Republic

The presentation will introduce the development, aims, target issues, instruments and limits of the global legally binding instrument on mercury that's going to be adopted in 2013. First, the reasons for the decision for development of the instrument will be shortly mentioned. A brief summary of the process of development, its history and its current status will follow.

The presentation will then introduce the main issues targeted by the treaty as they are conceptualized by the elements paper that outlines the boundaries of effects of the treaty and therefore has direct impact on the level of success in solving the problem of mercury contamination. In relation to this, the main instruments that the treaty offers for solving the problem of mercury contamination will be described.

Special attention will be paid to issues that are very relevant for Armenia, such as industrial pollution from metallurgy, burning of fossil fuels or lamp production.

The presentation will also provide insight in positions of global civil society to the treaty and its development. This part will be based on comments of two major networks of civil society organizations working on the issue of mercury pollution (the International POPs Elimination Network and Zero Mercury Working Group) to working papers of the mercury treaty as well as comments officially raised during its INC2 that took place in January 2011 in Chiba, Japan.





Obsolete pesticides stockpiles and potential solutions for them: Experience from Belarus

Eugeniy Lobanov
Center for Environmental Solutions (CES), Belarus

Today Belarus faces many crucial problems in the field of hazardous waste management, but among them there is a very special case of disposal of obsolete and banned pesticides. During the period of 1973-1988 obsolete pesticides were buried in 7 tombs in different regions of Belarus. In those times, the burial method was the only method available for dealing with obsolete pesticides. According to data, presented by Ministry of the Natural Resources and Protection of the Environment and Ministry of Agriculture, the total volume of buried pesticides is 4108.3 tones, including more than 800 tones of DDT. General technical conditions of these disposal dumps are generally unsatisfactory and in some cases even critical.

Since accession of Belarus to the Stockholm convention on POPs, significant measures have been implemented in order to minimize the impact of obsolete pesticides on the environment. Implemented measures included re-packaging of obsolete pesticides, monitoring of stockpiles and storages, informational campaigns and searching for methods for final disposal. Important role in this work has been done by public organizations and initiatives – mainly by raising public awareness about the issue of obsolete pesticides, organizing public monitoring of obsolete pesticides, and bringing attention of authorities to certain hot spots, like Verchedvinsk's obsolete pesticides tomb.





Pollutant Release and Transfer Register – Important Tool for NGOs Working on Chemicals

Jana Mikulaskova,
Arnika – Toxics and Waste Programme, the Czech Republic

Pollutant Release and Transfer Register (PRTR) provides detailed information about handling and discharging of hazardous substances into the environment. At one place you can find collected data on how many of those substances are annually released into air, water and soil and transferred in waste and wastewater by specific industrial enterprises.

The PRTR Presentation is focused on explaining functions of register as well as providing better orientation in it for users and advice how it can be used by NGOs and other stakeholders.

The presentation deals with the most hazardous substances that are monitored and it provides examples of information what we can obtain from the PRTR. The PRTR is seen in an international context. Using the PRTR and through consistent implementation of the Stockholm Convention and REACH can be achieved systematic reduction of substances dangerous to human health and environment. PRTR provides data for better implementation of these tools and is one of important potential activities leading to the goal of chemically safe world in 2020 under SAICM (= Strategic Approach to International Chemicals Management).

In the Czech Republic the first database was available online on the 30th September 2005. It contains data about what quantity from 93 known chemicals was discharged into the environment by particular enterprises in 2004, 2005, 2006, 2007, 2008 and 2009. Using the data Arnika Association compiles each year top-ten polluters. The presence of the enterprises in the charts of top-ten worst polluters and their release often motivate enterprises to eliminate emissions of dangerous substances and to introduce environmental friendly technologies.

The presentation describes experiences with PRTR in The Czech Republic and differences between Czech PRTR and European PRTR. It also shows its usefulness for implementation of the Stockholm Convention.





Inventory of the Expired, Unfit Pesticides in Aragatsotn, Ararat and Armavir Provinces of the Republic of Armenia

Karine Yesayan, RA Ministry of Agriculture, Head of the Department of Horticulture Development

The problem of expired, unfit pesticides emerged after the collapse of the USSR, when the regional and inter-regional units of the “Hayberriutyun” production association were fully privatized. In the past these units provided for the collective- and soviet farms of the republic the supply of agro-chemicals (plant protection products, fertilizers, growth stimulators, fodder additives used in animal husbandry, etc.), therefore, these products were kept in the stores of the mentioned association. Before ratification of the Stockholm Convention by the Republic of Armenia, nobody took interest in the fate of expired and unfit for use pesticides. This is proved by the fact that during the privatization process any obligation regarding the safekeeping or safe destruction of the mentioned products was not provided by an owner. The first inventory of the expired pesticides that were kept in the stores of the previous “Hayberriutyun” association was implemented in 2005 by the province inspectors of the Farming State Inspection of the Ministry of Agriculture according to which the number of expired and unfit pesticides was 48843 kg. In addition, one of the already known places of the obsolete pesticides is the Nubarashen burial ground where about 500 tons expired pesticides are buried. In September 2009, the regional project "Expired Pesticides Management and Capacity Strengthening in Eastern Europe, Caucasus and Central Asia" (GCP/INT/062/GFF) was launched by the UN Food and Agriculture Organization which includes Albania, Azerbaijan, Belarus, Armenia, Georgia, Moldova, Mongolia, Romania and Macedonia. Total project budget is U.S. \$ 2396550 from which U.S. \$1396550 is the co-financing of the participating countries. The project aims to organize training for trainers. The project will be completed in late 2011. Within the framework of this project it is planned to implement a pilot project entitled “Inventory of Expired Pesticides in Aragatsotn, Armavir and Ararat Provinces of Armenia”. The project budget is around 25 thousand U.S. dollars of which U.S \$ 5000 dollars will be our contribution. The project will be carried out through “Vetagro” and “Armenian Women for Health and Healthy Environment” NGOs through direct supervision of the Ministry of Agriculture. The choice of these provinces was made taking into account the fact that the major stockpiles, as it is seen from the table, are located in Ararat and Armavir provinces and through the choice of Aragatsotn province we will try to assess the situation in the unexplored areas. The program plans to make up an inventory in the communities of the mentioned provinces and in the former regional stores of the “Hayberriutyun” association. The inventory will be made regarding not only the available pesticides but also the empty containers, the contaminated soil, as well as the contaminated building materials of the dilapidated stores. The data obtained in the result of inventory making will be entered in a comprehensive e-program of pesticides management and analysis. The electronic program will enable to assess the studied objects according to individual criteria: the negative impact on the environment or human health. The database will be transferred to the Ministry of Agriculture, which later will be replenished with data of other provinces. PSMS program data will also be available for the ministries of nature protection, emergency situations and health.





The European Union's Non-State Actors and Local Authorities in Development programme for Armenia

IMPROVEMENT OF CHEMICAL SAFETY IN RURAL ARMENIA

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The European Union is the major donor of the “Scaling up Experience in Improvement of Chemical Safety to Contribute to Poverty Reduction in Rural Armenia” project. Other supporters at various stages included the Global Environmental Facility through UNDP, the Global Greengrants Fund, the International POPs Elimination Network, Women in Europe for a Common Future (WECF), the Czech Development Agency and the OSCE Office in Yerevan.

The contents of the brochure are sole responsibility of Arnika Association and Armenian Women for Health and Healthy Environment and can under no circumstances be regarded as reflecting the position of the European Union.



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