

IHPA

INTERNATIONAL
HCH & PESTICIDES
ASSOCIATION

SUPPORT IHPA

POPs NEWSLETTER

No 23, JUNE 2012

PREPARED ON BEHALF OF IHPA

Editor: Prof. Dr. Md. Mahbubar Rahman, Dean, Faculty of Fisheries, Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU), Gazipur, Bangladesh, drmahbubarr@gmail.com

Co-Editors:

- *Prof. Dr. Joao PM Torres, Biophysics Institute – UFRJ – Brazil, Rio de Janeiro, Brazil, mjptorres@biof.ufrj.br*
- *Ms. Gulchohra Aliyeva, Lancaster University, Lancaster Environment Centre, g.aliyeva@lancaster.ac.uk*
- *Dr. Michael Bittner, RECETOX, Masaryk, University Kamenice 3, Brno, CZ62500 Czech Republic, bittner@recetox.muni.cz*
- *Dr. Jiri. Novak, RECETOX, Masaryk, University Kamenice 3, Brno, CZ62500 Czech Republic, novakj@recetox.muni.cz*
- *Ondrej Mikes, MSc., RECETOX, Masaryk, University Kamenice 3, Brno, CZ62500 Czech Republic, mikes@recetox.muni.cz*
- *Ms. Khatuna Akhalaia, Milieukontakt International, Georgia, khatunaakhalaia1@yahoo.com*
- *Yeneneh T. Belayneh, PhD., USAID/OFDA, USA, ybelayneh@ofda.gov*
- *Roland Weber, PhD, POPs Environmental Consulting, Ulmenstrasse 3, 73035 Göppingen, Germany, roland.weber10@web10 or roland.weber10@googlemail.com*

The aim of this newsletter is to disseminate information in a cost-effective way on the Development taking place in the area of POPs as implicated in the Stockholm Convention and other pollutants 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 bioremediation, non-combustion 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) at <<http://www.iHPA.info/resources/newsletter/>>.

CONTENTS:

1. **COLLECTIONS OF RECENT PROGRESS IN AZERBAIJAN (QUOTED FROM PRESS RELEASES)**
Gulchohra Aliyeva
 - (I) **A success story: Azerbaijan Government takes action to deal with Obsolete Pesticides**
 - (II) **MEP Dan Jørgensen visits Azerbaijan in March 2012!**
John Vijgen
 - (III) **Clean Ukraine from the Obsolete Pesticides (OP) by the End of 2011**
 - (IV) **BHOPAL GIZ 2012**
2. **BHOPAL WASTE TO BE INCINERATED IN GERMANY**
By Jade in Brighton
3. **APPROVAL TO MADHYA PRADESH GOVERNMENT TO DISPOSE OF 350 METRIC TONNES OF UNION CARBIDE TOXIC WASTE IN GERMANY**
4. **INDIA DEAL TO BURN WASTE LEFT AFTER BHOPAL DISASTER**
5. **PILOT REMEDIATION OF OBSOLETE PESTICIDES IN VIETNAM**
6. **OBSOLETE PESTICIDES LEGACY PROBLEMS IN MONGOLIA REMAIN UNSOLVED**
7. **ENVIRONMENTAL MOVEMENT IN ALBANIA IN A EUROPEAN CONTEXT**
8. **ENVIRONMENTAL MOVEMENT ALBANIA**
9. **BROCHURE ON ELIMINATION OF RISKS FROM OBSOLETE PESTICIDES IN MOLDOVA**
10. **NATIONAL CONFERENCE "ACT NOW"**
11. **CONTRIBUTIONS FROM BALA SUGAVANAM**
 - (I) **Church and Pesticide Safety**
 - (II) **Malaria :**
 - (III) **Weed killer linked to birth defects in Britain**
 - (IV) **Tyres illegally sent to Vietnam**
 - (V) **(5) 1PPB of domestic herbicide contaminations causes £300 loss to a company specializing in vegetable seedlings**
12. **SOME IMPORTANT OBSERVATIONS ON PESTICIDES IN AFGHANISTAN**
Md. Mahbubar Rahman
13. **DRIN'S CONTAMINATION IN BRAZIL**
Torres, JPM and Manhães-Rocha, DA
14. **ENVIRONMENT AND SECURITY INITIATIVE**
OSCE
15. **FOLLOW-UP ON HCB CONTROL IN UKRAINE:**
Tomasz Stobiecki

1. COLLECTIONS OF RECENT PROGRESS IN AZERBAIJAN (QUOTED FROM PRESS RELEASES)

Gulchohra Aliyeva

I. A success story: Azerbaijan Government takes action to deal with Obsolete Pesticides

In October 2011 – May 2012, FAO-Green Cross-IHPA-Milieukontakt International and UNEP Ecores NatCom have implemented the pilot project “Awareness raising and Inventory of obsolete pesticides” in Azerbaijan within GEF programme “Capacity Building on Obsolete Pesticides (OP) in Eastern European, Caucasus and Central Asia (EECCA) countries”.

The UNEP-Ecores NatCom has successfully organised public awareness seminars in Baku, Salyan, Ganja and Kurdamir with support of the International Resource Complex of Azerbaijan (IRC public libraries in these cities), the Ministry of Agriculture of the Republic of Azerbaijan and the local executive authorities. The project also included analysis of soil/unknown pesticide samples collected at several former pesticide storage warehouses (OP sites) in Lancaster Environment Centre of Lancaster University (UK). In support to the project implementation, on 17 January 2012 the Government of Azerbaijan has set up the fact-finding Inventory Commission comprised of the experts of the Ministry of Agriculture, the Ministry of Ecology and Natural Resources, the Ministry of Public Health Services, the Ministry of Emergency Situations, the Ministry of Finance, the Ministry of Economic Development and the State Committee of Land and Cartography (order of the Cabinet of Ministers of the Republic of Azerbaijan No. 31/5-46 dated 14 December 2011). The objective of the commission was to organize field trips to the former agrochemical storage facilities in different regions of Azerbaijan, to reveal and report quantities of banned and obsolete pesticides, details of contaminated sites, and provide recommendations to the Government of Azerbaijan on further actions to reduce the exposure to the population through proper practices of OP safeguarding, disposal and remediation activities. The inventory field trips have been completed within the period of 26 January - 5 March 2012. The detailed OP inventory report was submitted to the Deputy Prime Minister of Azerbaijan along with recommendations. The findings of the Inventory Commission have also been entered into the Pesticide Stock Management System (PSMS) developed by UN FAO. The Action Plan for mitigation/elimination of OPs is under preparation by the commission experts. The Chairman of the Inventory Commission is Mr. Aladdin Eyvazov, Deputy-Chief of State Phytosanitary Control Service of the Ministry of Agriculture of Azerbaijan, and the Deputy Chairman is Ms. Khoshqadam Alasgarova, Chief of Plant Protection and Pest Control Section of Phytosanitary Control Service of the Ministry of Agriculture of Azerbaijan.

II. MEP Dan Jørgensen visits Azerbaijan in March 2012

Mr. Dan Jørgensen, Member of the European Parliament, Vice Chair of the Committee for Environment, Public Health and Food Safety, visited Azerbaijan from 8 to 11 March 2012, and met several Members of the Milli Majlis (Parliament), and Mr. Ismat Abasov, the Minister of Agriculture, as well as Dr. Shahin Panahov, Chairman of the UNEP-Ecores National Committee working on POPs issues in Azerbaijan, to discuss the pesticide activities in the country. At the end of the meetings, a group has visited the refurbished temporary obsolete pesticide storage site in Jangi village located in ~50 km from Baku.



MEP Dan Jørgensen meeting Mr. Ismat Abasov, the Minister of Agriculture of the Republic of Azerbaijan

III. Clean Ukraine from the Obsolete Pesticides (OP) by the End of 2012

John Vijgen

The Government of Ukraine has put through the Ministry of Environment Protection and Natural Resources the task to completely clean Ukraine from the obsolete pesticides (OP) by the end of the year 2012.

It is well-known that the Israeliian Company SI Group Consort Ltd exported from Ukraine more than 25K MT of different sort of toxic wastes such as obsolete pesticides, MNCB and HCB.

If one would decide to place the trucks which have taken this dangerous waste out from Ukraine in 2011 behind each other, it will form a row of nearly 14 km.

In accordance with National plan, 22 regions of Ukraine will have to be completely cleaned from obsolete pesticides. Particularly talks were held about Vinnitskaya, Volynskaya, Zhytomyrskaya, Zakarpatskaya, Zaporozhskaya, Kirovogradskaya, Luganskaya, Nikolaevskaya, Odesskaya, Poltavskaya, Rovenskaya, Sumskaya, Khersonskaya, Khmel'nitskaya, Cherkasskaya, Donetskaya, Kievskaya, Lvovskaya, Kharkovskaya, Dnepropetrovskaya oblasts and Crimea (Autonomic Republic).

In accordance with the signed contract between MoEP and SI Group Consort Ltd, the Israelis have already exported 296,024 MT of OPs from Donetskaya oblast, 526,322 MT of OP from Kievskaya oblast, 339, 627 MT of OP from Lvovskaya oblast, 1070,183 MT of OP from Kharkovskaya oblast and 391,035 MT of OP from Dnepropetrovskaya oblast during this year.

The repackaging works were completed on the 14-15th of May.

The last truck left Kharkovskaya oblast on the 23rd of May.

And the cleaning of Ukraine from toxic wastes will keep going on

IV. BHOPAL GIZ 2012:

<http://www.dw.de/dw/article/016010126,00.html>



A German institution was selected by the Indian government to carry out a waste removal operation from a factory in Bhopal, the site of a deadly gas leak that killed several thousand people in 1984.

The Indian government confirmed a plan in the mix with the German Society for International Cooperation (GIZ) on Friday to dispose of 350 tons of toxic waste from a factory in Bhopal where a gas leak killed thousands in 1984.

Final details in the contract between the GIZ, the Indian state of Madhya Pradesh, and the Indian federal government are expected to be completed in the next three or four weeks. The Madhya Pradesh Gas Relief and Rehabilitation Minister, Babulal Gaur, said the Indian government would pick up the 250 million rupee (3.6 million euros, \$4.5 million) tab for flying the industrial waste to Germany.

The contaminated material, which is solid and contains pesticides and heavy metals, is not connected to the methyl isocyanate gas that leaked from the factory in 1984. It is from chemical dumps that occurred between 1969 and 1984, which are believed to have been contaminating ground water in the area. The water is used by nearby slums and is suspected to have caused serious health problems among residents.

"India lacks the capacities to dispose of the soil properly," said the GIZ's Hans Herrmann Dube. "We are starting to draft detailed disposal plans, based on the premise that safety is more important than speed."

GIZ has not said where the hazardous waste will end up, but it did note that facilities in Germany would allow for the waste to be disposed of safely without danger to public health or the environment.

mz/pfd (EPD, dpa, AFP)

<http://www.bhopal.org/2012/05/bhopal-waste-to-be-incinerated-in-germany/>

2. BHOPAL WASTE TO BE INCINERATED IN GERMANY

May 25 2012 by Jade in Brighton

The Group of Ministers (GoM) for the Bhopal gas tragedy has drawn up plans for the 350 metric tonnes of waste remaining inside the abandoned Union Carbide premises to be exported to Germany for incineration.

The final go ahead for the proposals has been decided upon at the GoM meeting on the 8th June 2012. Representatives from the German Academy for International Cooperation (GIZ), the German agency who oversaw the disposal met with the GoM in Bhopal on May 17th 2012. GIZ had previously quoted the Madhya Pradesh Government the price of 9 million Euros to incinerate the waste in Hamburg, northern Germany. This is far less than quotes for the disposal of the waste in India.

The Gas Tragedy Relief and Rehabilitation Minister for Madhya Pradesh, Babulal Gaur, announced that the Union Environment and Forests Ministry had consented to the amendment of disposal rules earlier this week at a meeting in Delhi. "We have already discussed the issue with the representatives of the German company. It will happen soon," stated Babulal Gaur confidently.



Abandoned waste left at the site © Samuel Benoit

Multiple survivors' organizations have stressed the need for a long-term view regarding the waste disposal. These groups emphasize that the 350 tonnes of waste that have been proposed for disposal are by no means all of them, and that in fact, a further 27,000 tonnes of waste is buried in unlined pits and under solar evaporation ponds around the 67 acre factory premises. The waste in question originates from regular dumping of chemicals between 1969 and 1984 by Union Carbide at the plant in Bhopal, prior to the leak of the deadly methyl isocyanate gas that claimed the lives of 20,000 people.

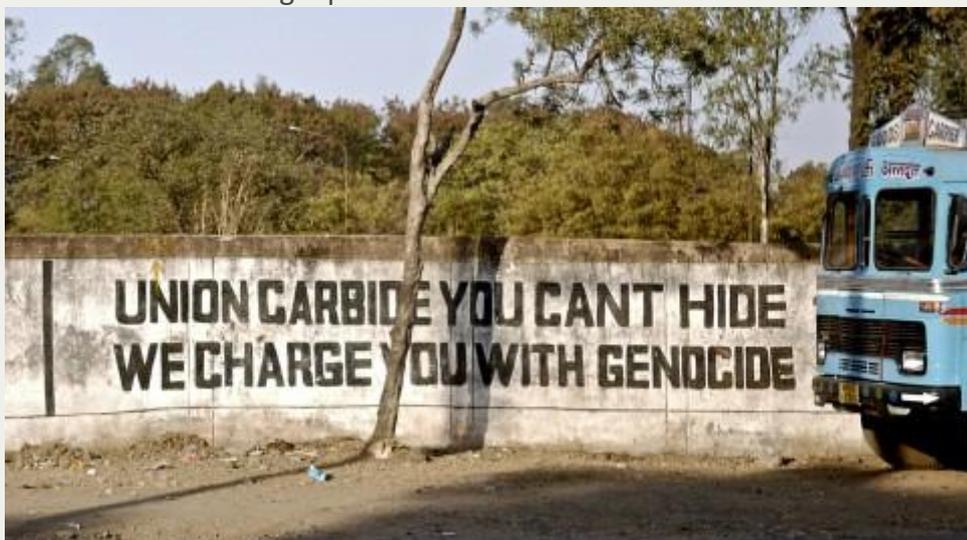
Campaigners have additionally voiced concerns that incinerating the waste outside of India will be done by be w Dow chemical, who bought Union Carbide in 2001, of the responsibility for the on-going disaster in Bhopal. Removing the toxic waste would provide little consolation for the thousands of people who continue to suffer as a result of the gas leak and its aftermath.



Resting Hulk left by Union Carbide © Samuel Benoit

In previous years proposals to dispose of the waste in other cities in India have been contemplated, initially at a facility close to Nagpur, and later near Taloja at Mumbai Waste Management. These plans to incinerate the waste in India were met with anger from local people living in the proposed areas, who expressed worries over another potential disaster. Residents are relieved with the decision to incinerate the waste elsewhere. “We are happy it is not happening in Madhya Pradesh,” Bhopal activist Rachna Dhingra agrees. “But the authorities must be careful that the process of transport of this waste from Bhopal to the port be done carefully.”

The plan is for the waste to be airlifted to the facility in Hamburg by GIZ. Plans to move the waste abroad came from suggestions that the international community may be better equipped to deal with such large quantities of hazardous waste.



Wall of the abandoned factory © Samuel Benoit

[back](#)

3. APPROVAL TO MADHYA PRADESH GOVERNMENT TO DISPOSE OF 350 METRIC TONNES OF UNION CARBIDE TOXIC WASTE IN GERMANY

Published Friday, June 8, 2012, 17:33 IST

Place: New Delhi, Agency: PTI

A Group of Ministers (GoM) on Friday gave its approval to Madhya Pradesh government to dispose of 350 metric tonnes of Union Carbide toxic waste in Germany.

As per the decision, the Centre will pay Rs 25 crore towards the cost of airlifting the waste which will be removed within a year.

Madhya Pradesh Bhopal Gas Tragedy, Relief and Rehabilitation Minister Babulal Gaur said that the GoM under the chairmanship of Union Home Minister P Chidambaram has asked the state government to prepare an agreement within two weeks' time.

"The proposal has been agreed to. The waste will be disposed of in Germany. The cost of Rs 25 crore for airlifting the toxic material will be borne by the central government. The whole procedure of removing the waste will be completed within a year," Gaur told reporters here after the meeting.

He said the state government will submit the agreement to the Centre before the next meeting.

According to Madhya Pradesh government officials, the disposal would be carried out by German agency-GIZ IS.

About 346 MT toxic waste is lying within the premises of the erstwhile M/s Union Carbide India Ltd (UCIL) at Bhopal.

The worst-ever industrial disaster had taken place at the Union Carbide plant on the intervening night of December 2-3, 1984.

According to a government data, a total compensation of over Rs 3,000 crore has been given in 5,295 cases of death, 4,902 cases of permanent disability, 5,27,894 cases of minor injury and 35,455 cases related to temporary disability among others.

Gaur, along with some senior state government officials, had on May 17 held a discussion with GIZ IS in Bhopal.

Today's GoM was attended by Union Urban Development Minister Kamal Nath, Minister of Health and Family Welfare, Ghulam Nabi Azad and Minister of Human Resource Development Kapil Sibal besides some senior officials of the central and state government departments.

[back](#)

4. INDIA DEAL TO BURN WASTE LEFT AFTER BHOPAL DISASTER

Friday, 08 June 2012 17:01 GMT, New-Delhi, AFP

The Indian government on Friday approved a proposal for a German environmental agency to dispose of over 350 tonnes of waste produced by the Bhopal factory where a gas leak killed thousands in 1984.

Home Minister P. Chidambaram and other senior ministers met in New Delhi to clear a deal in which the waste will be taken by air to Germany for incineration.

"The ministers have given a green signal," a senior home ministry official told AFP, declining to be named.

"The German Society for International Cooperation (GIZ) has been awarded the contract to transport the waste to Germany for disposal," he said.

The GIZ, based in Bonn, is a government-run enterprise that works on international environmental issues and sustainable development.



Bhopal was the scene of the world's worst industrial accident in 1984 when the pesticide factory leaked toxic gas into nearby slums, killing thousands instantly and tens of thousands more over the following years.

Tonnes of chemical waste previously produced by the plant were left in pits around the site, polluting local water supplies.

Residents have been campaigning for years for the thorough clean-up of the factory and the surrounding area.

GIZ, which will be paid by the Indian government, will negotiate details of the deal with the Madhya Pradesh state government, of which Bhopal is the capital. Many experts believe that the presence of toxic waste has resulted in a high prevalence of birth defects and illnesses among successive generations of people living near the plant. The accident was blamed on the factory's operators, Union Carbide, a US chemical group later bought by Dow Chemical.

[back](#)

5. PILOT REMEDIATION OF OBSOLETE PESTICIDES IN VIETNAM

Posted on March 20, 2012 in Capacity Building, Obsolete Pesticides Project, Public Participation

As many other developing countries, Vietnam is facing legacy problems with obsolete and POPs pesticides. In the case of Vietnam many of the former storages are emptied in a clean-up campaign and send for destruction to a modern cement kiln. But people have buried the stocks as well in the past because they did not know what to do with them. As a result the pesticides are mixed with soil and it is more difficult to collect and destruct them.



POPs remediation Vietnam

The Dutch Environmental Consultant Tauw implements a UNDP project to write a handbook with guidelines for Obsolete and POPs pesticides remediation based on the practical example of 10 pilot remediation sites.

For this assignment Tauw established in 2011 a consortium of the International HCH and Pesticides Association (IHPA), Milieukontakt International and the independent legal expert Helle Husum. The drafting of the handbook is well underway and pilot remediation has taken place on the first location: under the management of Berto Collet from Tauw a bunker with 25 tonnes of Lindane and DDT was emptied.

Boudewijn Fokke from Tauw is drafting the handbook and uses the extensive experience of John Vijgen from IHPA to review the result. Thus far the handbook contains 7 environmental management plans for the pilot remediation sites. Helle Husum writes a gap analysis of the obsolete and POPs pesticides legislation in Vietnam and Wouter Pronk of Milieukontakt writes guidelines for stakeholder involvement at local level. This in order to make sure that the local people that live close to the sites are well informed before a remediation starts, know how to minimize health risks and avoid mistakes, accidents and protests around the project.

[back](#)

6. OBSOLETE PESTICIDES LEGACY PROBLEMS IN MONGOLIA REMAIN UNSOLVED

Posted on January 5, 2012 in Mongolia. Obsolete Pesticides, Obsolete Pesticides Project

Mongolia's economy is booming. International investments for exploration of the extensive mineral deposits resulted in a growth rate of close to 20 percent in the fourth quarter of last year. But pesticides problems from the past – when the country was a Soviet satellite – remain unsolved.



POPs storage centre in Uvurkhangai province

A mission from Milieukontakt and the International HCH and Pesticides Association (IHPA) to Mongolia in October 2011 revealed that on different locations in the country obsolete stocks of POPs pesticides are stored under substandard conditions. The scale of the problem, however, is difficult to establish without a further research.



During a seminar with Milieukontakt and IHPA and Regional Inspectors from the Plant Protection and Quarantine Department of the Ministry of Agriculture in Ulan Bataar it was agreed that the inspectors would look into the matter in further detail and search for not administered stock of obsolete and POPs pesticides. This in order to get a first indication of the scale and extend of the problems in Mongolia.

Unfortunately the inspectors thus far were not able to provide Milieukontakt and IHPA with further details of amounts of obsolete and POPs pesticides in their home provinces.

It will be important to set up structural cooperation with the Ministry of Environment, the Ministry of Agriculture and other stakeholders in order to get the facts straight about the scale of the problem in Mongolia and prepare next steps to eliminate the acute risks on human health and the environment stemming from obsolete and POPs pesticides.

A mission report will be available after Milieukontakt and IHPA received comments on the outcomes from the Mongolian Ministry of Environment and the Ministry of Agriculture.

The Milieukontakt and IHPA mission to Mongolia was financed as part of the FAO, Green Cross Switzerland, IHPA and Milieukontakt implemented and GEF-funded project: *Capacity building on Obsolete and POPs Pesticides in Eastern European, Caucasus and Central Asian (EECCA) countries.*

[back](#)

7. ENVIRONMENTAL MOVEMENT IN ALBANIA IN A EUROPEAN CONTEXT

Posted on December 22, 2011 in Albania, Capacity Building, Country Publication, Uncategorized

In a new publication Milieukontakt describes lessons learned about building civil society for the environment. The publication is based on more than 20 years experience in this field in over 30 countries. It is published in the framework of the project, 'Serving Albanian Environmental Civil Society in Environment' (SACSIE), conducted in Albania from 2007 to 2010.

[back](#)

8. ENVIRONMENTAL MOVEMENT ALBANIA

GREEN AGENDA ON THE WESTERN BALKANS: FINAL PUBLICATION

Posted on December 22, 2011 in Uncategorized

In February 2007 the program Green Agenda in The Western Balkans began with the intention to develop Green Agenda processes in at least 12 communities in 6 countries. Nobody knew if this process would work in a region so much affected by recent conflicts. The big question was: Are local citizens in the region capable of cooperation outside their own circle and can they look at the future based on values developed in the past?

Now, 4 years later, a Green Agenda document has been adopted in 16 communities, and 7 more have gone through the process of development of Green Agenda documents. Local citizens have worked together to define values and develop pilot projects within a strategy based on these values. In each country local project managers, platforms, trainers and local working groups have been, and still are, committed to support the development of a true participative democracy of which Green Agenda is one of the most advanced, bottom up, approaches.

[back](#)

9. BROCHURE ON ELIMINATION OF RISKS FROM OBSOLETE PESTICIDES IN MOLDOVA

Posted on October 3, 2011 in Obsolete Pesticides, Public Participation Publication

Milieukontakt is co-author of the recent brochure **The Eliminators in Moldova**, published within the GEF/FAO project *Capacity Building on Obsolete and POPs Pesticides in Eastern European, Caucasus and Central Asian Countries*. The brochure was prepared to serve as an example and inspiration for those who will work or are already working on problems related to obsolete pesticides and Persistent Organic Pollutants (POPs), irrespective whether they work for national or local governments, NGOs, scientific organisations, donors or the private sector.

In the period 2005-2006, Milieukontakt and partners IHPA and Tauw set up a project in the Hincesti rayon in Moldova in order to safeguard 100 tonnes of obsolete pesticides as a pilot project, while simultaneously running public awareness campaigns and securing the involvement of local stakeholders. Milieukontakt has since then executed similar projects in Georgia, Kyrgyzstan and Ukraine and is still actively involved in elimination of risks from obsolete pesticides, most specifically in Eastern European, Caucasus and Central Asian (EECCA) countries.

The brochure has recently been distributed during the 11th International HCH and Pesticides Forum in Azerbaijan. You can download a copy here:

[The Eliminators in Moldova-brochure](#), [Cover pages-The Eliminators in Moldova](#)

If you would like to receive a hard-copy, please contact Sandra Molenkamp (at Ms.molenkamp@milieukontakt.nl). In two months time the brochure will also be available in Russian.

[back](#)

10. NATIONAL CONFERENCE “ACT NOW”

Posted on October 28, 2010 in Albania Project

Milieukontakt International –local office Albania organized on 27th October 2010 National Conference as a closure of National Campaign – Act Now! Representatives from Central Government, Foreign bodies, civil society organizations, media, etc, participated in the meeting. Event was greeted by Mr. Fatmir Mediu, Minister of Environment, Forest and Water Administration, Mrs. Noeke Ruiters from Netherlands Embassy and REC Albania.



Campaign was running for more than one year expanded country wide and involving several stakeholders from central and local government, state institutions, civil society, focusing on water, air, waste and public participation problems and presenting at the same time initiatives undertaken and positive examples for improvement of these issues.

Campaign was characterized by diversity in activities implemented, materials produced, topics dealt and cities/communes involved.

Environmental organizations guaranteed in the Conference their engagement in environment protection, contributing in improvement of the situation in the country as stated in the Declaration below.

[back](#)

11. CONTRIBUTIONS FROM DR. BALA SUGAVANAM

(1) Church and Pesticide Safety

Can public awareness to pesticide safety be raised using religion? In Ghana the Presbyterian Church through its agency Agricultural Services has raised serious concerns about the increasing rate at which people suffer and even die through poisoning from pesticides. The Church started a campaign “misuse of pesticides in Ghana, the time to act now”. The campaign stressed the consequences associated with mis-use and wrong application of chemicals and appealed to all stakeholders to make a collective effort at addressing the situation before it reaches a crisis point. One of the campaign leaders cited that even though the use of DDT had been banned in the country it is still being used illegally. He also informed the gathering that mis-use of agrochemicals was responsible for most of the cases of impotence among the male population in most of the country's farming communities. According to the church, the WHO estimated that 1.5 million cases of pesticide poisoning occur every year, resulting in 20,000 fatalities among agricultural workers most of whom were in developing countries such as Ghana. Church involvement will definitely increase public awareness to Chemical hazards but combining scientific facts and developments should not be blurred by spiritual message alone. (*source: Chronicle on Saturday, Accra, 26.11.11.*)

(2) Malaria:

Once again April 25 is the anniversary of WHO's Roll Back Malaria also called Malaria Day and on this anniversary Financial Times, London usually comes up with a special issue on health. We are providing some interesting developments in the control of this dreadful and complicated disease which the whole world is fighting. Let us start at the very beginning.

Malaria meaning disease from bad air originates from Italian malaria. It was Sir Ronald Ross in 1899 who determined the bite of anopheles mosquito spread malaria. It was in Sierra Leone stagnant foul water was an ideal breeding ground for mosquitoes. Sir Ronald raised funds privately and used a group of 50 to clean all the stagnant water and wrote in his 1902 book “Mosquito Brigades and how to organise them”. More than 110 years later, Sierra Leone painfully stays similar as the disease of the poor (*source BBC 25.4.12*)

Rob Newman, Head of the Malaria Programme at WHO says “we continue to make good progress against a formidable foe”. There has been greater access and evidence of impact “In general there is a downward trend driven to large part by funding and delivery of three potent tools artemisinin-combination therapy(ACT), long lasting insecticide treated bed nets,

and a rapid diagnostic tests. In addition large scale tests are in progress on Malaria vaccine (RTSS) developed by Glasgow Smith Kline (GSK).

On the other hand, ACT is coming across resistance in Thai/Cambodia/Myanmar border areas. In addition, resistance to treated bed nets are being reported. DDT alternative bendiocarb is proving effective. BASF has come up with a modified formulation of agricultural insecticide chlorfenapyr. This disrupts the energy producing mitochondria in insect cells, whereas the pyrethroids attack insect nervous system. There are also genetically modified mosquitoes being investigated at John Hopkins Institute, Baltimore and Imperial college London.

India's top drug maker Ranbaxy Laboratories has launched a new malaria treatment drug, Synriam, on the occasion of the World Malaria Day. The country's first anti-malaria drug would treat *Plasmodium falciparum* malaria in adults, the company said. It is said that the new drug was approved by Indian authorities for sale in India and conformed to the recommendations of the World Health Organisation (WHO). The WHO estimates that malaria kills about 15,000 people annually in India. But the Lancet, one of the world's leading medical journals, says that figure is hugely underestimated. It says more than 205,000 people die of malaria every year in India.

3rd Century AD, Chinese Technology helps revolutionary Malaria ACT that is saving millions of lives.

The interesting Chinese achievement, which is saving millions of people in developing countries using artemisinin-combination therapy (ACT) has links to 3rd Century Chinese technology. The story is very interesting to see how *the work carried out by Chinese scientist You You Tu* and her team have transformed malaria treatment — taking a clue from 1700 years old traditional knowledge to modern medical therapy.

More than 40 years ago, amidst the upheaval and turmoil of the Cultural Revolution in China, and against the backdrop of the Vietnam war, hundreds of Chinese scientists embarked on an ambitious effort to find a drug that would conquer drug-resistant malaria. The result was the discovery of artemisinin, a compound found in plants, which, with its derivatives, is now widely used around the world to treat the disease. This year, a highly prestigious Lasker Award went to Youyou Tu, an 81-year-old Chinese scientist who played a key part in that discovery.

In the midst of the Vietnam war, another desperate battle was being fought against *Plasmodium falciparum*, the most deadly of the malaria-causing parasites which had become resistant to the drug chloroquine. The U.S. came up with another drug to clear the parasite from the body — mefloquine. North Vietnam, for its part, appealed to China for help in fighting this disease.

In response, on instructions from Chairman Mao Zedong and Premier Zhou Enlai, the Chinese government organised a meeting in Beijing on May 23, 1967 to discuss the problem. A secret nationwide programme, known as project 523, was then launched, involving over 500 scientists from about 60 different laboratories.

Prof. Tu and her colleagues began by scouring the literature on traditional Chinese medicine, scrutinising ancient texts and folk remedies. They investigated more than 2,000 Chinese herbal preparations, of which 640 appeared promising. Of these, some 380 extracts involving about 200 herbs were chosen for testing in mice. Unfortunately, “progress was not smooth, and no significant results emerged easily,” she writes in her article. The turning

point came when an extract from a plant known to the Chinese as *Qinghao* (*Artemisia annua* or sweet wormwood) “showed a promising degree of inhibition against parasite growth.”

But subsequent experiments came up with much lower levels of inhibition. Prof. Tu came to the conclusion that this could be due to problems in extracting the active ingredient. She found a clue in an ancient Chinese text, *The Handbook of Prescriptions for Emergency Treatments* by Ge Hong that **goes back some 1,700 years.**

The text recommended soaking *Qinghao* in water, then wringing out the juice and drinking it. This sentence gave Prof. Tu the idea that the heating involved in the conventional extraction step they had used might have destroyed the active components, and that extraction at a lower temperature might be necessary to preserve antimalarial activity. Consequently, they switched to a lower-temperature extraction method. Still the extract was toxic. That problem was taken care of by purifying the extract to remove an acidic portion that had no anti-malarial activity. The remaining neutral extract, given the label ‘**extract number 191,**’ could completely clear the parasites when tested in mice and monkeys.

Prof. Tu presented the work at a project 523 meeting at Nanjing in March 1972. That same year, her group identified “a colourless, crystalline substance” as the active chemical compound. They called it *Qinghaosu*, which means the ‘basic element’ in *Qinghao*. The world would come to know it as **artemisinin. (source The Hindu, October 2011).**

It is interesting that recently scientists in India are reporting that extracts of more than 200 organisms including different species of marine fungi, seaweeds, mangroves, sponges, cnidarians, molluscs, echinoderms and ascidians were screened during the first two phases of the project, which began in 2004. About 25 organisms showed the presence of anti-malarial activity against resistant malaria parasites.

(3) Weed killer linked to birth defects in Britain

At least nine babies born to mothers living within a few hundred yards of each other in Northfleet, Kent have suffered gastroschisis a condition that causes the digestive system to grow outside the abdomen. The women in Kent think that atrazine a toxic chemical widely used as a herbicide but banned by the European Union in 2004 could be to blame. It was found that water in the area contained dangerous levels of atrazine. In the USA there is a case going on to secure \$333m payout to victims. US research group has established a link between exposure to atrazine and an increased prevalence of gastroschisis. Atrazine has been in use for more than 50 years and the manufacturers insist it is entirely safe. Southern Water which supplies water in the area acknowledged that atrazine was found in 2008 but said tap water came from a variety of sources and any pollutant would be heavily diluted. (Source *Irish Times*, April, 2012.)

(4) Tyres illegally sent to Vietnam.

Investigations show that used tyres are being shipped from Ireland to Britain and Holland for onward transport to Vietnam. Vietnam has banned the import of waste tyres in 2007. Waste tyres have become a significant cause of pollution in Vietnam where they are illegally dumped in rain forests or burned with other wastes which causes the release of organic pollutants including POPs and also cadmium, lead etc. Companies shipping waste tyres illegally from Britain make 50 cents per tyre equal to a profit of €1,215 per container. They are shipped as export for use in construction of motorway embankments. (Source : *Irish Times*, April 2012).

(5) 1PPB of domestic herbicide contaminations causes £300 loss to a company specializing in vegetable seedlings

A Yorkshire company in the UK selling special vegetable seedlings using special peat compost reported that they lost vegetable seedlings worth around £300 million. During preparation of special peat culture it was contaminated with domestic herbicide at a concentration of 1 part per billion.. This affected the seedlings grown under special conditions. (Source: BBC Farming).

[back](#)

12. SOME IMPORTANT OBSERVATIONS ON PESTICIDES IN AFGHANISTAN

Md. Mahbubar Rahman

Distribution, Marketing and Use of Pesticides:

- The distribution, marketing and use of pesticides are not regulated by any legal framework.
- According to interviews at the meeting with pesticide dealers, at present 100 brands of pesticides are marketed and used in Afghanistan. However, during the visits to the shops, list of 54 brands of pesticides could be collected. Those enlisted pesticides comprised 27 active ingredients.
- Those pesticides belong to different classes such as organophosphate, carbamate, synthetic pyrethroid, organochlorine, cyclodiene etc., and most of them fall under WHO toxicity class II (14 a.i) followed by class U (7 a.i.s) and class III (5 a.i.s) while the lowest to Class Ia (1 a.i.). The most commonly used pesticides are dimethoate, lambda cyhalothrin, endosulfan, dicofol, sulfur, zinc phosphide, aluminum phosphide, mancozeb etc. BHC has been largely used for the locust control in the southern belt since long back but the pesticide dealers and sellers denied its recent marketing.
- Most of the 30 farmers interviewed at the Farmers Field Schools use pesticide product without knowing its name, just depending upon what they get from the pesticide retailers/dealers. Sometime they seek advice from the local agriculture department but finally they buy what the pesticide dealers sell to them. In a crop season, more than 4 times they spray a crop and harvest the crops even within 2-3 days of spraying.
- The pesticides are mostly used against Moroccan and Italian locusts, melon fly, aphids, thrips, leaf miners, codling moths, mealy bugs, shot hole, powdery mildew, blights, blasts etc., in crops like melon, grapes, apples, pomegranate, almond, apricots, peaches, tomato, cucumber, onion, potato, beans etc.

Pesticides Sellers:

1. The district level markets have an average 4 pesticide shops including DURUKHSHAN Ag Depot. In each district, a DURUKHSHAN Ag Depot operates under the banner "Durukhshan Agriculture and Social Association" formed jointly by International Fertilizer Development Corporation (IFDC) and Accelerating Sustainable Agriculture Program (ASAP) contracting Noor Heravi Brothers Group
2. This Association has established 340 DURUKHSHAN Ag Depots throughout Afghanistan. Some of such Ag Depots are shown in Figure 1. Each Ag Depot is owned by individual local owner. These pesticide shops sell products of Noor Heravi and also those of other distributors/importers. Other pesticides shops (Figure 2) sell pesticides

available from the distributors/importers including Noor Heravi. The pesticide sellers in Afghanistan do not require any license for selling pesticides. However, the DURUKHSAN Ag Depots have certificate issued jointly by MAIL, IFDC and USAID authenticating that they have been established under their contract agreement. There may be as many as **1,100** such pesticide shops in the country including **340** Durukhsan Ag Depots.

Figure 1. Durukhsan Ag Depot at Baghlan



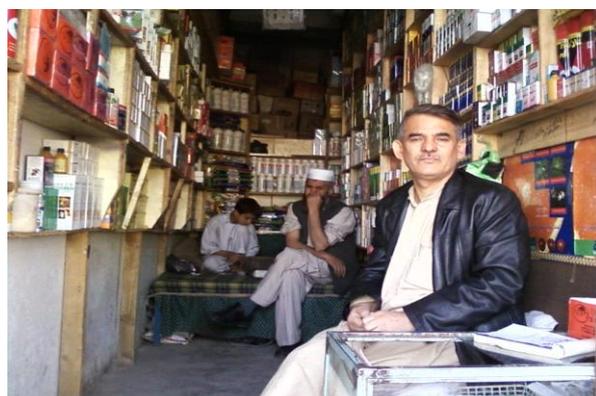
Durukhsan Ag Depot at Carabag, Kabul



DURUKHSAN Ag Depot at Baghlan



Figure 2. A General Pesticide Shop at Baghlan district



Pesticides Sale Volume at District Level Shops

3. The district level shops sell pesticides to retailers and directly to farmers. Each district level shop has 5 to 15 retailers. Each such district level shop sells during a crop season pesticides worth of about US\$ 200 to 2000 and in quantity 50 to 600 L/Kg. Annually pesticides of worth US\$ 6000 to 10000 and in quantity 1500 to 3000 L/Kg) are sold.
4. Besides the permanent shops, the pesticides are sold to the farmers by the hawkers (10 – 20) opening temporary shops on the streets on the market days (twice a week) in each major market including district level markets.

Annual National Consumption of Pesticides

The information on the exact amount of pesticides consumed annually was not available anywhere. However, pesticide traders/district level shops information estimate the annual consumption of pesticides in the country at around 1, 6 50,000 L/Kg – 3, 300,000 L/Kg.

Quality of Pesticides in the Shops

5. Many pesticides were having dates expired long ago (Figure 3). Many pesticides bottles/packs had no mention of expiry or manufacturing dates. Bottles having labels for one pesticide were found with other pesticides inside. Many pesticides bottles/packs were very old and deformed. There is no quality control system. There is every doubt of pesticides having less or active ingredients other than mentioned in the label. This requires investigation through chemical tests.

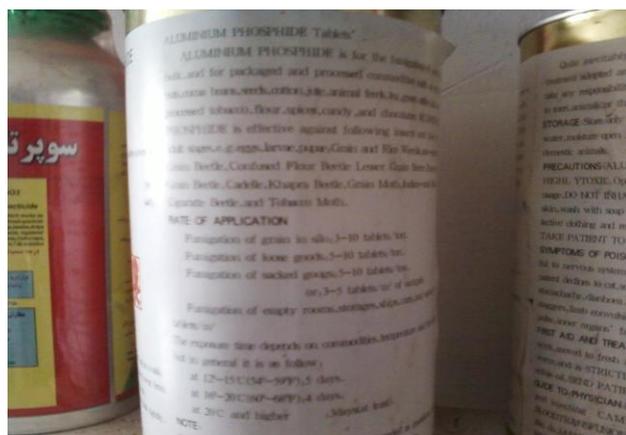
Figure 3. Pesticides having dates expired



Pesticide Labels:

6. Most of the pesticides had labels in English or in language of the manufacturing country (Figure 4). No mention of WHO class and danger symbol was on the label. In some cases, bottles or packing contain the local pesticide dealer's name and logo. No standard is followed in labelling

Figure 4. Labelling of pesticide containers



Effectiveness of Pesticide

7. Most of the pesticides do not offer satisfactory control of pesticides. For example, Icon (Deltamethrin) used by Kabul Medical University when imported first was effective but later on procured locally were ineffective against mosquito and other such pests. Pesticides do not offer satisfactory control of Melon fly in melon etc. The reasons of pesticides' inefficacy against melon fly including if there was any development of resistance were not known.

Figure 5. Selling pesticides and food stuff in same shop



Handling of Pesticides

8. The farmers mix, spray, dispose of and/or carry part-used bottles/packs bare handed and without any protection. The pesticide sellers in the shop do not adopt any protection. The same seller at the same time sells food stuff and other consumer products (Figure 5). In the stores, the workers do not use any protective measures while handling pesticides.

Disposal of pesticides and Container

9. Excess pesticide mixtures are in some cases over-sprayed in the same crop plot while in most cases thrown away. The empty pesticide containers are thrown away mostly without cracking and sometime after cracking in the garbage pits, water pools, jungle, plot-ails etc. Never re-used. In many cases, traders burry-down the containers having old or bad quality pesticides.

Storage of pesticides

10. The pesticide stores are located in the residential area and even some having family residence (brown circle) on top floor (Figure 6). Built with soil floor, most of the stores do not have window, ventilation and provision of electricity. The pesticides cartoons are stacked on above another very compact. Some floors (red circle) of the stores were mixed with spilled pesticides.



Figure 6. Pesticides stores with family residence & spilled pesticides

Distribution of Pesticides

11. Most of the pesticides distributors do not have own transportation. In many cases, pesticides are transported in passenger buses. There is also no restriction on the movement of pesticides carrying vehicle even in the cities.

Pesticide Import

12. Afghanistan does not manufacture or formulate any pesticides. It is dependent on pesticides manufactured in China, Pakistan, Iran, India, Denmark, etc. But only 10% to 20% pesticides are imported with the government/customs clearance while 80% to 90% are brought illegally without government's or custom's knowledge. These are brought bypassing the 10 border customs and 14 tax customs. Thus the official record of pesticides imported is much less than consumed or sold in the country.

Obsolete Pesticides

13. Date expired/bad quality pesticides are sold after re-labelling with date changed and mixing with others. In most cases, pesticide sell is planned in such a way that all procured pesticides are sold-out in anyway before they become obsolete. Thus no obsolete pesticide was reported. However, BHC was procured in large volume for locust control at the institutional level as well as at private level even before 3 to 4 years. There must be some obsolete stocks. But that could not be traced out.

Legal Framework

Pesticide Regulation:

- There is no Pesticide Regulation in enforcement in the country. However, recently A Pesticide Act has been approved by the Ministry and sent to the Ministry of Justice.

Registration of Pesticide:

- There is no registration system or requirement for pesticide business in Afghanistan.

[back](#)

13. DRIN'S CONTAMINATION IN BRAZIL

Torres, JPM and Manhães-Rocha, DA

Laboratório de Radioisótopos Eduardo Penna Franca, Instituto de Biofísica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro (Brazil)

Last week the Court of Labor in Sao Paulo determined a fee of US\$ 500.000.000, half a billion dollars to cover the health costs of more than 1,142 ex-workers of the Aldrin/Dieldrin/Endrin Factory in Paulinea, SP. This plant produced organochlorine pesticides from 1977 to 2002.

In 2010 the companies were declared guilty and were condemned to pay US\$ 10,000 to each of the contaminated workers and their families per year of work at the plant. The companies did not pay anything and requested the trial to continue at superiors' tribunals.

While the trial on justice continues, Shell, Basf, Cyanamid are contesting the deposit and this week obtained one partial victory at the Supreme Labor Court in Brasilia. They can postpone the deposit till the trial ends.

Meanwhile, more than 40 of these workers already died from different kinds of cancer. Conclusion: when money talks, health and the environment means nothing in Brazil.

[back](#)

14. ENVIRONMENT AND SECURITY INITIATIVE

OSCE

Not so long ago security was traditionally discussed only in the context of the military defence and external threats but ever growing environmental problems of the last century has transformed the way we look at the security today. It became apparent that polluted rivers and air, depleted fisheries and lost forests, floods and landslides pose as much risks to the national security in terms of human health or economic development, as external threats and violence. Understanding of linkages between environment and security was an important turning point in redefining the concept of the security. Today the role of the environmental integrity for the security is not debated. Moreover, over last decade environmental issues have become important aspect of peace and confidence building process as it creates opportunities for cooperation between the countries and has potential to reduce tensions.

It was increased call for environmental issues to be tackled within the security context that led to development of the Environment and Security Initiative (ENVSEC) in 2003 at the Environment for Europe Conference in Kiev. Six international organizations – Organisation for Security and Co-operation in Europe (OSCE), United Nations Development Programme (UNDP), United Nations Environmental Programme (UNEP), United Nations Economic Commission for Europe (UNECE), Regional Environmental Centre (REC) and North Atlantic Treaty Organisation (NATO) as associated partner, joined efforts to tackle environment and security risks through promotion of environmental cooperation amongst and within the countries. ENVSEC Initiative pooled the strengths and expertise of the partner organizations and financial resources of donors to address environmental threats to security in the regions of Central Asia, South Caucasus, South Eastern Europe and Eastern Europe.

In 2004, the ENVSEC developed a shared perspective of regional environmental and security issues in the South Caucasus following national consultations with the government, civil society and academia in Armenia, Azerbaijan and Georgia. A shared understanding of the priority environmental and security problems has formed the basis of a regional work program. The priority environment and security issues of the South Caucasus include: the degradation of and access to the natural resources in the conflict zones, the management of transboundary natural resources, dangers posed by rapid urbanization and lack of awareness of environment and security issues. In the South Caucasus region, ENVSEC Initiative activities are coordinated by the OSCE.

Since 2004, ENVSEC Initiative has been actively engaged in identified priority issues through targeted projects, which were developed in close partnership with the ENVSEC national focal points from the Ministries of Environment and Foreign Affairs of the South Caucasus countries. The main framework for generation of the project ideas is the ENVSEC Regional South Caucasus Meetings that take place annually since 2007. It offers a participatory platform for exchanging views and encourages feedback to ensure that ENVSEC activities are tailored to the needs and priorities of the region and countries. The meeting also updates ENVSEC partners and national stakeholders on ongoing projects and future activities that hold potential for developing transboundary cooperation.

The most recent meeting was organized by the OSCE in Tbilisi on 3-4 April 2012. A broad range of government and civil society representatives from Armenia, Azerbaijan and Georgia participated in the regional meeting. Representatives of the ENVSEC partner organizations,

international development agencies and EU programme for the Prevention, Preparedness and Response to man-made and natural disasters in the ENPI East Region (PPRD-East) and Waste Governance (ENPI East) have also contributed to discussions, shared their experiences and informed about their plans. Meeting discussed potential areas for the ENVSEC's further involvement in the region. Disasters, including wildland fire management, multilateral environmental agreements, mining issues, climate change, as well as awareness and civil society strengthening are the areas which will be in the ENVSEC focus in 2013 in the region.

Protracted conflicts in the South Caucasus have been the main obstacle for resolution of many environmental issues in the region. However, under this political reality, ENVSEC spurs no efforts to explore the ways to foster dialogue on environment and security issues. Some tangible results have been achieved over last 6 years - fostering transboundary cooperation on water resources in the region, addressing forest fire issues, improving capacities in urban environmental planning and management, strengthening civil society and advancing principles of good environmental governance.



[back](#)

15. FOLLOW-UP ON HCB CONTROL IN UKRAINE:

Tomasz Stobiecki

Regional Inspectorate of Environmental Protection in Gdansk has issued 2 decisions on financial penalty for Port Service Ltd. for inappropriate storage of waste. The company has been obliged *i.a.* to fulfill conditions stipulated in integrated permit, to remove the waste from inappropriate place, to adapt waste storage places to different atmospheric conditions, to prevent leakages of the packaging of waste and to secure the area from the access of unauthorized persons.

Regional Inspectorate of Environmental Protection in Gdansk carries out monitoring of the area surrounding the facility covering soil, surface water and air for presence of HCB. The results so far has not indicated the contamination of the area, in particular soil.

Research conducted by the border sanitary inspectorate in Gdynia has not shown any negative impact of activities carried out by PORT SERVICE Ltd. on the quality of drinking water from water intake situated 0,5 km from the facility.

Site inspection by Chief Inspector of Environmental Protection, of waste storage places conducted on 3 July 2012 has not shown any infringements of storage conditions of waste containing HCB, stipulated in the revised decision of the Marshall of Pomorskie Region.

GIOŚ has initiated withdrawal of the permit for the company SI BUD SYSTEM LLS from Kiev for shipments of 6000 Mg of waste with the code 070407* from Ukraine to Poland destined for disposal in PORT SERVICE Ltd. in Gdańsk.

There will be expertise prepared by Chief Inspector of Environmental Protection on compliance of activities of incineration plant of Port Service with the integrated permit. In case of any non-compliance, it will be the basis for amendment of the integrated permit, including imposing stricter conditions for storage of wastes containing POPs.

The Chief Inspector of Environmental Protection has ordered controls of all currently valid notifications for import of hazardous waste from Ukraine for disposal in Poland, including the facilities for handling the hazardous wastes. Controls will be finalized by mid July 2012.

[back](#)