



POPs NEWSLETTER

No 26, MARCH 2014

PREPARED ON BEHALF OF IHPA

Editor: Prof. Dr. Md. Mahbubar Rahman, Professor, Department of Entomology, and Vice - Chancellor, 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. Gulchokra 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	<u>12TH INT. HCH AND PESTICIDES FORUM:</u>	3
1.1	<u>INTRODUCTION</u>	3
1.2	<u>SUMMARIES OF SESSIONS</u>	4
1.2.1	<u>FAO SESSION: PESTICIDE MANAGEMENT: MORE FOOD LESS RISK;</u> <i>Jan Breithaupt</i>	4
1.2.2	<u>HEALTH PROBLEMS AT OBSOLETE PESTICIDES SITES (EXPOSURES AND TOXICITY OF PESTICIDES)</u> <i>Margret Schlumpf, Walter Lichtensteiger</i>	5
1.2.3	<u>EDUCATION AND AWARENESS RAISING: A NEED AND A MUST</u> <i>Sandra Molenkamp, Wouter Pronk</i>	7
1.2.4	<u>STATE OF THE ART AND LATEST DEVELOPMENT IN FORMER SU STATES AND CENTRAL EUROPEAN REGION</u> <i>Tomasz Stobiecki; Stanislaw Stobiecki</i>	8
1.2.5	<u>TREATMENT AND DESTRUCTION ON POPs SESSION</u> <i>Nick Morgan</i>	9
1.2.6	<u>NEWLY LISTED POPs AND OTHER STOCKHOLM CONVENTION ISSUES</u> <i>Roland Weber</i>	10
1.2.7	<u>WORKSHOP 'BIOAVAILABILITY ON 12TH HCH & PESTICIDES FORUM</u> <i>Joop Harmsen, Dieter Hennecke</i>	10
1.2.8	<u>CLASSIFICATION OF POPs PESTICIDE DUMPSITES</u> <i>Boudewijn Fokke</i>	11
1.2.9	<u>PCB TREATMENT</u> <i>Dirk Jan Hoogendoorn</i>	12
1.2.10	<u>FIELD TRIP ORGANIZED BY SI GROUP: IMPRESSIONS</u>	14
1.2.11	<u>SILENT LAND AT THE 12TH INTERNATIONAL HCH AND PESTICIDES FORUM</u> <i>Jan van den Berg</i>	15
2	<u>DDT: PESTICIDE LINKED TO ALZHEIMER'S</u> <i>James Gallagher Health and science reporter, BBC</i>	16
3	<u>UKRAINE COMPLETES THE HCB WASTE EXPORT FROM KALUSH</u>	17
4	<u>HOT NEWS: FAO AND EU TO HELP BELARUS REDUCE RISKS FROM DANGEROUS PESTICIDES PRESS RELEASE</u>	19
5	<u>NEW FRENCH LAW WILL BAN NON-AGRICULTURAL USE OF PESTICIDES FROM 2020</u>	20
6	<u>A LIFE + PROJECT "DISCOVERED" LANDS IN SPAIN</u>	21
7	<u>NEWSLETTER: IMPROVED PESTICIDES AND CHEMICALS MANAGEMENT IN THE FORMER SOVIET UNION GCP/RER/040/EC: REVIEW OF 2013</u>	22

1. 12TH INT. HCH AND PESTICIDES FORUM:

1.1 Introduction

This newsletter is mainly meant to reflect on the recent 12th Forum, successfully held in Kiev from 6-8 November 2013. Before you start to go into the summaries of the sessions, I would like to draw your attention on the Key Messages of the 12th International HCH and Pesticides Forum that includes:

- Introduction
- Forum Sponsors
- High-level discussions
- It is time to accelerate action, by John Vijgen, Director IHPA
- Forum Declaration
- Speech of the Minister of Environment and Natural Resources of Ukraine,
- O.A. Proskuryakov
- Message from the Minister of Environment of the Republic of Moldova,
- Gheorghe Șalaru
- Message from the State Secretary of the Ministry of Health of the Republic of Slovenia, Mrs. Brigita Čokl
- Message from the Environment Commissioner Janez Potočnik,

You can download the Key Messages of the 12th International HCH and Pesticides at <http://www.hchforum.com/conclusions.php>



[back](#)

1.2 Summary of Sessions

1.2.1 FAO Session: Pesticide Management: More Food Less Risk Conclusions and Recommendation

Jan Breithaupt of FAO

The six presentations at the FAO session *explored different examples of successful pesticide risk reduction and demonstrated how the risk mitigation measures are connected to pest and pesticide management and contributing to an integrated approach to a sustainable production intensification.*

Different **aspects of successful pesticide risk reduction approaches** are documented, focusing on numerous stages and aspects **throughout the pesticide life cycle** and contributing to **reducing the adverse effects of the use of pesticides to health and the environment.**

First results of an ongoing regional project (GCP/RER/040/EC) entitled: “*Improving capacities to eliminate and prevent recurrence of obsolete pesticides as a model for tackling unused hazardous chemicals in the former Soviet Union*” identified **strengths and weaknesses** of countries within the pesticide life cycle management and made **recommendations for addressing key issues and challenges** countries face. One goal is to establish a **regional forum** geared to **providing resources for full-scale clean-up** and a **region-wide system** capable of **dealing with challenges posed by pesticides.** Activities will include the **disposal of stockpiles**, but the priority lies in **building capacities** from passing **legislative reform**, implementing **awareness-raising programmes**, improving pesticide **registration and regulatory processes**, to the promotion of **alternatives** to the most hazardous chemicals in use.

Recommendations to improve the **legal and regulatory framework** on pesticide management in Eastern European and Central Asian countries are presented and suggestions for future actions are provided by the experts.

The importance of **integrating environmental requirements** in the agricultural policies in **Moldova** is documented in order to reduce risks for public health and environment posed by pesticides, while at the same time improving the state of agricultural ecosystems, increasing the quality of agricultural products and solving the problems of past pollution.

In **Georgia**, the project “*Reducing the use of hazardous chemicals in developing countries: potential of implementing safer chemicals including non-chemical alternatives - tools for Georgia and the EECCA region*” (implementing agencies **WECF**, Greens Movement and GEBMA) conducted a pesticide life cycle assessment, identified weaknesses and implemented or anticipates **pesticide risk mitigation measures.** The project’s activities and results could serve as a **success story** for the wider region in Eastern Europe and Central Asia.

The Presentations underline the importance that farmers need to gain a better understanding of how water management, soil systems, farming/growing systems, crop seeds and varieties, pest/disease ecology, harvest and post-harvest strategies and market access are all **interlinked.**

It becomes evident that only a **holistic approach to pest- and pesticide management** will help farmers to **maximize yields, reduce the use of pesticides** and other inputs and **improve livelihoods.**

All the presented examples and recommendations, tools, guidance documents and policies contributing to a successful pesticide risk reduction can help countries develop their own

action plans towards a sustainable production while preventing adverse effects to human health and to the environment.

FAO promotes Integrated Pest Management (**IPM**) within a sustainable crop production intensification (**SCPI**) context as the most suitable strategy for crop production and protection, particularly for smallholder and resource poor farmers.

It is FAO's hope that through effective **implementation of the new *International Code of Conduct on Pesticide Management*** we can achieve significant reduction of risks to health and the environment from pesticides, while improving the productivity, sustainability and livelihoods of farmers everywhere.

FAO Pesticide Risk Reduction Group (AGPMC)
Viale Delle Terme di Caracalla
00153 Rome, Italy

Pesticide-Management@fao.org
Fax: +39 06 5705 3057
www.fao.org/agriculture/pesticides

[back](#)

1.2.2 Health problems at obsolete pesticides sites (Exposures and Toxicity of Pesticides)

Organized by GreenTox

Margret Schlumpf, Walter Lichtensteiger

The symposium **on exposure and effects of HCH and POP pesticides** should assist to answer the following questions:

1. Does exposure to dump and waste sites or landfills containing persistent pesticides lead to changes in internal levels (= biomarkers of exposure) of these pollutants in people living in neighbourhood areas and can these increased levels be analyzed in biological fluids (serum, urine, milk) or tissues (fat, organs) in humans concerned? (Analytical methods: standard chromatographic / MS methods or effect based analytical methodologies (Bart Pieterse, Amsterdam, The Netherlands).
2. Will such elevated levels of pollutants be relevant enough to induce biological effects? And: What kind of effects could be expected in the exposed human and animal populations?

Exposure and Effects of Pesticides

Reproduction: The FLEMISH Environment and Health studies in Flanders, Belgium illustrate the clear dependence of human pollutant levels from pollutant pressure in designated areas: Adolescents residing in study areas with slightly differing densities of contamination also differed with regard to serum levels of pollutants. Biomonitoring samples of study participants living in areas of waste incinerators had significantly elevated blood and urine levels. Also sex hormone concentrations were increased. However, differences in hormonal levels and sexual maturation could only in part be explained by differences in internal levels of contaminants and may also be due to differing individual pollutant patterns and yet unknown factors (Kim Kroes, Brussel, Belgium)

An other study reported on a cohort of 8 – 9 year old boys in Chapaevsk, a small city in Central Russia, where half of the city was occupied by chemical industries producing chlorine containing agricultural chemicals including HCB and HCHs. OCP (organochlorine pesticide) concentrations were found to be associated with total time living in Chapaevsk, distance from

OCP source, but also with local dairy consumption, longer duration of breast feeding and favouring lower BMI in these children (Oleg Sergeyev, Chapaevsk, Samara, Russia).

In the city of Ufa, a hot spot of dioxin pollution, higher dioxin concentrations were found in ejaculate of men diagnosed as infertile. High dioxin levels were also associated with pathospermia (Galimova, E., Ufa, Russia)

Cancer: Excess cancer risk is increasingly found to be associated with abundant use of pesticides in agricultural, commercial and home and garden applications. Positive associations are also found between childhood leukemia and pesticide exposures. Other studies suggest that occupational agents like chlorinated solvents or organochlorine compounds (PCBs) may play a role in the causation of exocrine pancreatic cancer while DDTs involvement in breast cancer has been described repeatedly. Regardless, exposures remain high: New studies report that more than half of the study population in Spain had concentrations in the top quartile of ≥ 1 POPs. (Miquel Porta, Barcelona, Spain).

Neurotoxicity: In newer systematic reviews on neurodevelopmental outcomes of children exposed to pesticides (organophosphate, organochlorine), PCBs, mercury, cadmium and/or lead during early life, the majority of studies indicate negative impact. There is increasing evidence that chemicals present in the environment can interrupt neurodevelopmental processes during critical periods of development resulting in defective neuronal functioning like eg hearing deficits. It is now generally accepted that developmental exposure to chemicals in early life may adversely affect structure and function of the developing child, adolescent and adult nervous system. Exposed neonates demonstrated a higher proportion of abnormal reflexes while young children had more attention and behavioural problems. Important to know: Neurodevelopmental disorders like autism, ADHD (attention deficit and hyperactivity disease), mental retardation and cerebral palsy are common, costly and are all lasting for lifetime. (Tomas Trnovec, Bratislava, Slovakia)

Liver diseases: Brazils Santos and São Vicente Estuary suffers from contamination by toxic industrial waste. Prevalence of liver disease, hepatitis, cirrhosis and liver, biliary tract or pancreas cancer was evaluated in a study at St. Paulo University, Brazil. About 13% to 49% of people who reported having liver disease did not report on any kind of exposures. As higher risk factors to develop liver diseases appear occupational exposure to chemicals, alcohol consumption, consumption of locally produced milk, fruit and water from natural sources. (Carvalho, Daniele, University of São Paulo, Brazil)

In conclusion, there is evidence from more recent international studies presented at the symposium in Kiev, that elevated exposures to persistent organochlorine and other pesticides can occur in proximity to dump and waste sites or landfills and may affect biomarkers of exposure (concentrations of chemicals in the environment) and have detrimental effects on exposed human and animal populations. Especially at risk are early life stages with respect to reproductive and neurodevelopmental effects. Additional areas of concern are so far also cancer in young and adult life, the several liver diseases and getting more and more in focus: derailed energy metabolism.

Most of these developments are ongoing more or less unimpededly regardless of new chemical legislations (REACH), and it remains difficult, even impossible to cope with the intricate situation. (Finn Bro-Rasmussen, Copenhagen, Denmark). It would be important to demonstrate reduced levels of internal exposures and occurrence of changes in biological parameters following clean-up of chemical waste sites in order to strengthen correlations between exposures and biological consequences.

[back](#)

1.2.3 Education and awareness raising: a need and a must

Sandra Molenkamp, Wouter Pronk

Organized by Milieukontakt International and Green Cross Belarus



Aziz Umarbaev from the Kyrgyz NGO Green Light presenting the NGO initiative to remediate Suzak A. obsolete and POPs pesticide burial site in Jalal Abad oblast

During the 12th HCH & Pesticides Forum a separate session on education and awareness raising in obsolete and POPs pesticides projects was organized by Milieukontakt International and Green Cross Belarus. Three presentations introduced education and awareness raising activities implemented within international obsolete and POPs projects:

Green Cross Belarus does a lot to involve children and teachers in awareness raising activities in its projects and in this way spreads the message that people should stay away from the dangerous chemical stocks among the entire population. Vladimir Shevtsov, director of the organization, showed some impressive results from an international contest of drawings and paintings that illustrate the health and environmental threats from obsolete and POPs pesticides.

Olga Tsygulyeva from the Ukrainian organization Mama 86 drew attention to the fact that the organization was able to find extra stocks of unidentified obsolete stocks of (POPs) pesticides in a project completed in 2010 in cooperation with Milieukontakt through an intensive awareness raising campaign. By talking intensively to different groups of people in villages in the project area extra and previously unknown stocks of buried pesticides were uncovered.

Milieukontakt together with the Kyrgyz organization Green Light gave a presentation on a small project in Kyrgyzstan where obsolete and POPs pesticides from a burial site recently poisoned people and cattle. In line with the agreements under the Stockholm Convention Kyrgyzstan has to dispose of the estimated 3000 tonnes of obsolete and POPs pesticides at this burial site, but finding the resources to realize such a final solution will take years. Through active awareness raising, a consortium of international environmental NGOs and an environmental consultancy firm have been able to secure the modest project financing from different sources needed to minimize the immediate environmental and health risks from the burial site, leaving the task to dispose of the stocks a goal for longer term planning. The project is a good example of how to achieve important results with a very modest project budget.

In a reaction to the presentations participants concluded that awareness raising campaigns and stakeholder involvement efforts need to be organized very carefully. If awareness raising does not contain the right message formulated in the right way, it can even have a counterproductive effect. If organized and prepared properly however, awareness raising is a vital part of any project on POPs and obsolete pesticides and ensures that problems do not occur again.

In the experience of the participants of the session many international projects do have some elements of public participation, but often only as an obligatory part of the project. It was concluded that public participation, education and awareness raising are very important but need to be organized as a structural component of every project. There is, however, little tradition of public disclosure and participation in the region of former Soviet republics and implementation can be difficult and will take a lot of efforts and time.

[back](#)

1.2.4 State of the art and latest development in former SU states and Central European Region

Tomasz Stobiecki; Stanislaw Stobiecki

This session took place during the last day of 12-th HCH and Pesticides Forum. The Session was chaired by Tomasz Stobiecki and Stanislaw Stobiecki (Institute of Plant Protection – National Research Institute Sosnowice Branch – POLAND). We had six presentations from five different countries:

1. Republic of Moldova: “POPs free Moldova – 10 years of efforts: results, continuations and plans” presented by Liudmila Marduhaeva from Ministry of Environment. The presentation summarizes the achievements and presents current activities related to the liquidation of inventories of POPs in Moldova.
2. Romania: “Disposal of obsolete pesticide stocks - case study Romania” presented by Mihaela Claudia Paun - Policy Adviser for Impact Assessment and Pollution Control Directorate Ministry of Environment and Climate Change. Big clean-up activity for obsolete pesticides stockpile disposal, starting from inventory thru remediation, re-inventory, repackaging, final destruction and final steps of prevention of build-up of new pesticide stocks is described in this presentation.
3. Republic of Poland: “An overview on obsolete pesticides problems in Poland after completion of main disposal actions” presented by Tomasz Stobiecki from Institute of Plant Protection – National Research Institute Sosnowice Branch. This presentation discusses current issues related to pesticide waste: newly generated pesticides waste, Rudna Gora landfill, import of HCB from Ukraine to Poland and problem with leachates from rinsing of the agricultural sprayers. It also specifically describes the effectiveness of the tomb disposal program in Poland, which is now complete with the exception of a few sites.
4. Republic of Tajikistan: “Kanibadam burial site of obsolete pesticides: History and problems” presented by Murodjon Ergashev from Foundation to support civil initiatives (FSCI, Tajikistan). Presentation describes the storage of obsolete PPP in the biggest such a place in Tajikistan. Presentation provides information on origin of the landfill, the quantity of waste disposed of and the measures taken to inventory waste and diagnose the problem.
5. Russian Federation: “The current situation of environmental pollution by pesticides in the Russian Federation and measures to resolve it” and “Extremely dangerous and obsolete pesticides: what the public need to know?” both presented by Oxana Tsittser

from the Ministry of Natural Resources and Environment of the Russian Federation. The first presentation describes the results of environmental monitoring for contamination of PPP in the territory of the Russian Federation. The another one describes the risks posed by the storage of hazardous waste, the possible solutions and the steps taken by various organizations in the Russian Federation.

The presentations presented provide a picture of the activities undertaken in the region in order to eliminate the old inventories of POPs. In some presentations the methods for treatment of waste currently generated are described as well as the activities aimed at preventing the formation of new waste. The information presented give the opportunity to an optimistic view of the possibility to solve the problem in the former SU states and Central European Region.

[back](#)

1.2.5 Treatment and destruction on POPs session

Nick Morgan

Chair: Nick Morgan (Veolia ES Field Services Ltd), United Kingdom

Co-chair: John Follin (General Atomics), USA

The session provided the opportunity for presentations and discussion on a wide range of treatment technologies applicable to the destruction and stabilisation of POPs wastes. Various technologies were presented including thermal, chemical, physical options for the treatment of a wide range of liquid, solid, gases and contaminated materials. In each case the technology was presented in the context of a Case Study demonstrating the practical application of the technology, it's benefits and limitations.

In addition to presentations on specific technologies, a presentation was given by TVN Television, Poland in relation to issues relating to the importation of HCB wastes from Ukraine. The presentation highlighted concerns associated with controls surrounding the shipment, storage and disposal of waste exported from Ukraine to the Port Services Incinerator in Poland. Subsequently Port Services made a statement and presented an update on the activities at the Port Services facility.

During discussions it was commented that with a wide range of technologies on offer it was crucial that monitoring and control of both the treatment facility and those stakeholders involved in the management chain were consistently and robustly applied. Specific issues included:

- Adequate and detailed characterisation of wastes prior to transport/treatment;
- Consistent online monitoring of emissions from treatment facilities;
- Accountability of regulators, waste producers, waste notifiers/brokers, transport and disposal organisations/companies involved in the treatment project lifecycle;

The session concluded that with a wide range of proven and commercially available treatment technologies there are viable solutions available now for POPs removal. There is also a responsibility amongst all stakeholders to ensure that projects are managed in order to ensure that POPs are treated to agreed and consistent standards and that problems are not merely transferred from one location to another.

[back](#)

1.2.6 Newly listed POPs and other Stockholm Convention issues

Roland Weber

Chaired by Roland Weber (POPs Environmental Consulting) and Mihaela

Claudia Păun (Ministry of Environment and Climate Change, Romania)

The presentation of Roland Weber (POPs Environmental Consulting) introduced the recent developed Stockholm Convention guidance drafts for the inventory development and for BAT/BEP management of perfluorooctanesulfonic acid (PFOS) and polybrominated diphenylethers (PBDEs) recently listed in the Stockholm Convention. Timo Seppala (Finnish Environment Institute) gave an overview on the key issues of the most recent Stockholm Convention listed substance: hexabromocyclododecane (HBCD). Mihaela Claudia Păun (Ministry of Environment and Climate Change, Romania) gave an insight into the approach of Romania to update the National Implementation Plan (NIP) with emphasise on the new listed POPs. Ivan Holoubek (RECETOX, Czech Republic) made an overview on the “Global POPs monitoring and an insight into the current state in the CEE countries”. In addition he did a critical evaluation of the effectiveness of the Stockholm Convention measures.

The last part of the session focused on Dioxins and other unintentionally produced POPs. Roland Weber gave an overview on the “Updated toolkit for identification and quantification of releases of dioxins and other unintentional POPs in the Stockholm Convention” with emphasize on the contaminated sites chapter. The last two presentations detailed then two examples of contaminated megasites with Dioxins and unintentionally POPs: Zarema Amirova (Environmental Research & Protection Centre, UFA, Russia) gave an overview on the problems of Dioxin contaminated sites in UFA. Georgii Lysychnenko (Director of Institute of Environmental Geochemistry, Ukraine) gave a status report on the current situation and the waste management of the HCB waste stockpile in Kalush/Ukraine.

Overall, the session gave a good insight on key issues on new listed brominated and fluorinated POPs and also on the contaminated site challenges of Dioxins and other unintentionally formed POPs. Therefore, the session complemented other sessions (focusing largely on pesticides issues) and brought to the Conference a more comprehensive picture on the POPs challenges the world and in particular the countries in this region are facing

[back](#)

1.2.7 Workshop Bioavailability

Joop Harmsen, Dieter Hennecke

Chaired by Konstantin Terytze & Dieter Hennecke

In risk assessment it is already common knowledge that total concentrations measured in soil often over estimate risks. The available concentration is a better predictor of risks and can often be correlated with effects. Decreasing of the bioavailability is considered as a proper tool to reduce the risks on a contaminated site.

For the estimation of risks it is important to have suitable methods. In Germany incidental ingestion of soil is considered as an important pathway that affects human health. Since 2004 an in vitro method is in use that simulates the human gastrointestinal conditions (DIN 19738). This method is in revision in order to improve the experimental procedure to give more reliable results. Dieter Hennecke and Monica Machtold focussed on their presentation on the aspects that needed improvement. Well defining of additives in the tests (e.g. milkpowder), the use of enzymes and incubation time has been shown to have effect on the results. The work in Germany will lead to a more robust method that can also be internationally applied.

Joop Harmsen summarized the developments in International Standardization (ISO) on the subject of bioavailability. Besides a guideline on the application of methods, specific methods become or are already available. All ISO-methods must have an understandable chemical-

physical base, which is an important aspect for the acceptance of the concept of bioavailability within regulation.

The presentation of Oleg Bogdevich showed that using a remediation process based on biodegradation should be monitored by an experienced and accredited laboratory. For an assessment of the prospects it is necessary to identify the complete spectrum of contaminants and also get information on the geotechnical conditions of the site.

Ion Barbarasa showed that bioavailable pesticides are available for uptake by vegetation as a low tech approach which can easily be applied in developing areas. However, to remove all pesticides from a contaminated site will need a long period, which was subject of the discussion after his presentation.

Contaminated sites can also be found in Africa. Joop Harmsen presented the African Approach to reduce the risks on the site. Important methods are stimulation of biodegradation using landfarming or reduction of the availability by isolation of the pesticides. This can be a physical isolation or using of adsorbing material (charcoal).

The use of adsorbing materials (biochar) was further explained by Ines Vogel. She also mentioned the effect on decomposition.

In the final discussion Konstantin Tertytze focussed on the future of bioavailability. He stressed the necessity of possibilities to measure bioavailability and the importance of international standard methods. If we do it on the proper way it will become an important tool to better understand the risks on contaminated sites.

[back](#)

1.2.8 Classification of POPs pesticide dumpsites

Boudewijn Fokke

This session was used to present and demonstrate the use of a simple classification tool. This tool is developed to present a holistic view on the status of a POP pesticides dumpsite, to explain the current status of a site and facilitates the identification of the gap(s) to break the infinite site assessment circle (Joop Harmsen et al., 2009) and to sustainably manage the dumpsite.

The introduction of this session was given by Boudewijn Fokke (Tauw, The Netherlands). The fact that the status of a dumpsite can vary from uncontrolled to controlled and the dumpsite characteristics describing the status were discussed. The chosen dumpsite characteristics are environmental risks, awareness of stakeholders, the availability of funds for sustainable site management, and availability of site remediation techniques.

The next part of the session was used to demonstrate the application of the tool. The first case was presented by Ingrid Rijk (Witteveen+Bos, The Netherlands). She used the tool to demonstrate the development of the 100 hectare hazardous waste dumpsite of Volgermeer The Netherlands from an uncontrolled to a completely controlled site over the last 60 years. Tomasz Stobiecki (Institute of Plant Protection, National Research Institute Sosnowice Branch, Poland) gave a presentation on the status of the Rudna Góra, a POPs pesticide dumpsite near Jarworzno in Poland, over the last 100 years. Matthijs Bouwknecht and Boudewijn Fokke (Tauw), The Netherlands) characterized respectively the POPs pesticide dumpsite Suzak A in Kyrgyzstan and the Nubarashen dumpsite in Armenia. The last presentation of the session was by Joop Harmsen (Alterra Wageningen, The Netherlands) on his experiences in the project 'Risk Reduction of Soil Contaminated by Obsolete Pesticides in Africa'.

After the presentations of the cases the usefulness of the tool was discussed with the audience. It was concluded that POPs pesticide dumpsite classification demonstrates which initiatives should be taken to arrive at a sustainable dumpsite management. It was also concluded that the tool should be improved by including the legal status of the site and the willingness to allocate funds for sustainable site management.

[back](#)

1.2.9 PCB treatment

Summary and introduction by Dirk Jan Hoogendoorn

Chaired by Dirk Jan Hoogendoorn (Orion b.v., the Netherlands) and Urs K. Wagner (ETI Environmental Technology Int. Ltd., Chur, Switzerland)

Summary:

- 1) Using existing local capacity for licenced high temperature treatment of liquid PCB's and POP's in emerging economies 80% to 95% of the PCB problem can be treated local in many countries, with only 5% of the remaining PCB waste to be exported for treatment abroad.
- 2) Life cycle management and product re-use can be an important additional positive effect if inventory and sampling programs allow for additional oil quality analyses apart from PCB in oil testing. First of all in this way also PCB free transformers may benefit from the sampling efforts. Secondly the stability and the reliability of the electric distribution grid can be assessed and if necessary improved. Thirdly the low-PCB contaminated transformers with otherwise good technical conditions can be cleaned and re-used, thus moving the PCB treatment up on the Waste Hierarchy.
- 3) Based on local and country specific needs the general preference for 100% local treatment of PCB waste is usually not the economic en environmentally sound solution. However an important part of available budgets is spend on (studying and coordinating) these projects without always achieving results. Best practices and bench marks are available for feasibility scans for organizations wishing to use the available budgets effective and efficient.

Introduction:

The session PCB treatment consist of presentations for all technologies available in the EU and in emerging economies for PCB waste treatment and transformer decontamination. After an overview of the PCB waste related issues by Urs Wagner to set the context for a complete understanding of the subject the following was presented:

INTERNATIONAL STATUS OF PCB REMOVAL TOWARDS 2028 & IDENTIFICATION, ENVIRONMENTALLY SOUND MANAGEMENT OF PCBs FROM OPEN APPLICATIONS	Urs K. Wagner ETI Environmental Technology Int. Ltd. Switzerland
PCB PROJECTS IN EMERGING ECONOMIES: ENVIRONMENTAL AND ECONOMIC BALANCE BASED ON CORPORATE SOCIAL RESPONSIBLE INNOVATIONS	Dirk Jan Hoogendoorn Orion b.v, the Netherlands
<i>SODIUM TECHNOLOGY - THE CHOICE FOR TREATMENT OF POPS</i>	Edgar Bilger , Klaus Seikel, Susanne Butorac Dr. Bilger Umweltconsulting GmbH, Freigericht, Germany
OILS & PCBs FREE PROGRAM 2013:BAT/ BEP-LCM FOR INVENTORY, CONTROL, MANAGEMENT AND DECONTAMINATION OF PCBs – POWER TRANSFORMERS AND CASE HISTORIES	Vander Tumiatti , M. Tumiatti, C. Roggero, R. Actis, R.Maina Sea Marconi Technologies S.a.s.Italy

HIGH VACUUM DESORPTION PROCESS FOR DECONTAMINATION OF EQUIPMENT AND MATERIAL CONTAMINATED BY PCBs	Guillaume BARRIET APROCHIM SA, France
CO-PROCESSING OF PCB AND OTHER POP'S IN CEMENT KILNS. A LOCAL SOLUTION FOR A WORLDWIDE PROBLEM	Ed Verhamme Alternate Resource Partners – The Netherlands
DECONTAMINATION PROCESS USING AUTOCLAVE (ASD) AND DE-CHLORINATION TECHNOLOGIES (ODR) – WORLDWIDE PAST EXPERIENCE AND FUTURE VISION.	Michele Tonani , Mario Coppo DELCO Srl – Italy
PCB TREATMENT IN THE FUTURE. SITA DECONTAMINATION	Jacques Ledure, Thomas Dawance Sita Decontamination
POPs IN IRAN - TREATMENT AND LIFE CYCLE MANAGEMENT FOR THE 21ST CENTURY: CURRENT EXPERIENCES AND SOLUTIONS	Christoph Rittersberger Séché Environment

The presentation of Urs K. Wagner gave an insight view of the status of international PCB assessment and removal activities towards the 2028 target of the Stockholm Convention, addressing both achievements and gaps.

It was concluded that countries prefer local treatment/disposal capacity and infrastructure (for example local or mobile PCB treatment plants). Local availability, however, cannot generally be considered the best solution for a country. Country-specific needs must be carefully evaluated in the frame of a PCB assessment; and treatment/disposal options can only be defined if and when a reliable PCB inventory is available! Some minimum criteria to be considered for tenders are amongst others:

Type of PCB waste	<input type="checkbox"/> transformer <input type="checkbox"/> capacitor <input type="checkbox"/> oil (pure or contaminated) <input type="checkbox"/> soil <input type="checkbox"/> solids waste (e.g. concrete, metal parts etc.) <input type="checkbox"/> etc.
Contamination of PCB waste	<input type="checkbox"/> < 50 mg/kg <input type="checkbox"/> > 500 to e.g. 3'000 mg/kg <input type="checkbox"/> pure PCB
Total quantity of PCB waste	<i>Local treatment should only be envisaged with quantities exceeding certain limits (depending on technology/size of plant)</i>
Condition of PCB containing equipment	<input type="checkbox"/> in use <input type="checkbox"/> to be reused after treatment <input type="checkbox"/> phased out in good condition <input type="checkbox"/> phased out and leaking/defect <input type="checkbox"/> immediate actions necessary <input type="checkbox"/> phased out and drained

Today various environmentally sound PCB non combustion treatment and disposal technologies are available. Local waste treatment in high temperature incinerators or approved co-processing in cement kilns can be evaluated. Treatment costs seem to be nowadays generally transparent and fair. The transport (and export) of PCB wastes to a treatment/disposal facilities, however, can be costly and risky. If ecologically and economically feasible, waste exports should be minimised and re-use of equipment/material maximised.

Current actions in the countries should focus on updating the existing PCB inventories. Only reliable and complete PCB assessments can be regarded a sufficient base for evaluating treatment/disposal options. During NIP Updates, open applications of PCBs (for example caulks, paints, anti-corrosion coatings, etc.) should be considered when inspecting buildings and sites for closed applications, and included in the PCB inventory.

The countries and the responsible Ministries and Steering Committees must take responsibility and ensure their homework is done professionally. It is vital that practical related and country specific PCB Guidelines are developed and implemented. Furthermore, PCB awareness raising and capacity building activities must be scheduled and workshops held in order to inform and train all relevant stakeholders.

Finally, PCB cross-contamination and unintentional formation of PCDD/PCDF must be prevented.

The other presentations and subjects are self-evident. Presentations and available papers may be accessed through the IHPA website.

[back](#)

1.2.10 Field Trip organized by SI Group: impressions



[back](#)

1.2.11 Silent Land at the 12th International HCH and Pesticides Forum

Jan van den Berg

In September 2011, I travelled to Gabala, Azerbaijan, to show my documentary Silent Snow to the important audience of the 11th International HCH and Pesticide Forum. The film, about the consequences of pollution caused by the use of dangerous pesticides like DDT, was successfully received and later shown in over 35 countries at cinemas and international film festivals. Most importantly, it succeeded to inspire many people to take action and organize local initiatives to inform each other on a healthier way of producing food.

This fall I was therefore happy to return to the now 12th edition of the Forum in Kiev, Ukraine, which would host a preview of my first short film under the new Silent Land project: When elephants dance, the grass gets beaten. The project is a sequel to the Silent Land documentaries and has the objective to inform people about the effects of land grabbing for small local farms. In 'When elephants dance' we see how local farmers in Cambodia are losing their land to large multinationals and are faced with forced migration and food insecurity. Almost three quarter of the available land for agriculture in Cambodia has been sold to companies that produce for export only. As this is disastrous for the local food production, the World Food Program supports vulnerable parts of the population with food supplies. In the meantime, the exile of farmers continues. Since 2003, more than 400.000 Cambodians have been chased off their lands as a result of land grabbing. The stories I've heard about being an illegal migrant, the exploitation and having to work with dangerous pesticides are heart-breaking.

As I discovered on my journey to Kiev, in the Ukraine there's also still a lot of dangerous poison just lying out in the open. Often these toxic materials are located just next to children's playgrounds and it is very difficult to get rid of it in a safe way. It was again a great honor to be able to show my film to an audience of experts on this topic and I received very valuable feedback. The screening was held up a bit as the Communist Party held a demonstration outside the building against capitalism, while inside we discussed the dangerous left overs from Soviet Union's development aid. Main character 'Moon' attended the conference through a Skype-call and was very pleased with the compliments for the film.

As for the Silent Land project as a whole; after the premiere of the first short film we will continue working on the feature length documentary, which will offer a more worldwide perspective on the same issues. Early January, 'When elephants dance' will be screened on a Conference for Biology teachers in the Netherlands and the official world premiere will take in Antwerp on January 22nd, in combination with an expert panel discussion on land grabbing and food security. Furthermore, the film was part of the IDFA Docs for Sale selection last fall and will be screened on international film festivals like Parnu in Estonia, Cinemambiente in Italy and Festival du Film d' Environment in France this year. The project's educational material will also be soon available for schools, as part of the OXFAM GROW campaign.

More info on www.silentland.org

Trailer of 'When elephants dance, the grass gets beaten': <http://vimeo.com/79869713>



Photos by Jan van den Berg



[back](#)

2. DDT: PESTICIDE LINKED TO ALZHEIMER'S

By James Gallagher Health and science reporter, BBC News 28 January 2014

<http://www.bbc.co.uk/news/health-25913568>

Exposure to a once widely used pesticide, DDT, may increase the chances of developing Alzheimer's disease, suggest US researchers.

A study, published in JAMA Neurology, showed patients with Alzheimer's had four times the levels of DDT lingering in the body than healthy people.

Some countries still use the pesticide to control malaria.

Alzheimer's Research UK said more evidence was needed to prove DDT had a role in dementia.

DDT was a massively successful pesticide, initially used to control malaria at the end of World War Two and then to protect crops in commercial agriculture.

However, there were questions about its impact on human health and wider environmental concerns, particularly for predators.

It was banned in the US in 1972 and in many other countries. But the World Health Organization still [recommends using DDT](#) to keep malaria in check.

DDT also lingers in the human body where it is broken down into DDE.

The team at Rutgers University and Emory University tested levels of DDE in the blood of 86 people with Alzheimer's disease and compared the results with 79 healthy people of a similar age and background.

The results showed those with Alzheimer's had 3.8 times the level of DDE.

However, the picture is not clear-cut. Some healthy people had high levels of DDE while some with Alzheimer's had low levels. Alzheimer's also predates the use of DDT.

The researchers believe the chemical is increasing the chance of Alzheimer's and may be involved in the development of amyloid plaques in the brain, a hallmark of the disease, which contribute to the death of brain cells.

Prof Allan Levey, the director of the Alzheimer's Disease Research Centre at Emory, said: "This is one of the first studies identifying a strong environmental risk factor for Alzheimer's disease"

"The magnitude of the effect is strikingly large, it is comparable in size to the most common genetic risk factor for late-onset Alzheimer's."

Fellow researcher Dr Jason Richardson added: "We are still being exposed to these chemicals in the United States, both because we get food products from other countries and because DDE persists in the environment for a long time," .

Dr Simon Ridley, the head of research at the charity Alzheimer's Research UK, said: "It's important to note that this research relates to DDT, a pesticide that has not been used in the UK since the 1980s.

"While this small study suggests a possible connection between DDT exposure and Alzheimer's, we don't know whether other factors may account for these results.

"Much more research would be needed to confirm whether this particular pesticide may contribute to the disease."

[back](#)

3. UKRAINE COMPLETES THE HCB WASTE EXPORT FROM KALUSH

Mikhail Malkov

IHPA Ambassador, Ukraine

During the last 4 years the small Ukrainian town of Kalush has become well-known globally due to various environmental problems which can be followed by enormous transborder disaster. Such situation was developed since 1973, when the production of carbon tetrachloride and ethylene tetrachloride had been started there on the Kalush chemical giant "Oriana" and based on the exploration of Kalush potassium ore field deposit. As the result of termination of production of chemicals and after the collapse of the USSR Ukraine received a horrific inheritance such as ruined chemical plant, abandoned potassium mine, Dombrovskiy open-cast mine with about 20 Mln cubic meters of potassium brines and word-biggest landfill with HCB waste.

Since 2010 the Ukrainian Government has been continuously dealing with these problems. Invited joined EU – UN OCHA mission considered the situation to be extremely serious and

gave very practical recommendations to the authorities, especially due to potential pollution of one of the biggest Eastern European rivers – Dniester by hexachlorbenzene. Therefore the Government financed the export program of HCB.

It was stated in the documents that total quantity of HCB stockpiles in the landfill should be about 11,700 MT. However the further inventory done by the National Institute of Geochemistry of Environment of National Academy of Science of Ukraine confirmed another absolutely shocking figures – about 29000 MT!

The first HCB export of 7800 MT was done in 2010 by National Dangerous Wastes Management Center (the state-owned enterprise). Since 2011 the export operations were done by Israeli company “S.I. Group Consort” Ltd and its Ukrainian subsidiary. The remaining 8500 tons were planned to export for disposal to EU in the end of 2013.

However, in the August of 2013 due to serious hydrogeological problems the attention of the Authorities was turned again to the Dombrovskiy open-cast mine. It was confirmed by local inhabitants and scientists that on the peninsula in the quarry could be another illegal landfill with toxic wastes, possibly HCB. The immediate research study done by the National Institute of Geochemistry of Environment preliminary showed the presence of about 4000 MT of HCB waste both in bulks and steel drums buried on the depth of 2 – 2,5 meters. Probes of soil were processed in three different labs including ECOGYNTOX. The results were shocking. All of them confirmed the results of the study. And it is important to say that the level of the brines in the quarry has been continuously growing. The threat of infiltration of HCB into the brines with further pollution of Dniester became a reality. The Government had nothing to do but to make a decision of emergency export of this waste as well.



HCB-excavation works at the Dombrovskiy open-cast mine

So in late autumn of 2013 authorities offered to “S.I. Group Consort” Ltd to complete this job as well. It was definitely not an easy decision for Israelis to accept this proposal. By Ukrainian legislation, all the budget-funded jobs must be completed before the end of the calendar year. And the task was to increase the export for about 4000 tons. It would require the allocation of extra machinery and people, changings in disposal agreements and logistic chains. Nevertheless, after all calculations the company accepted the offer and started the job immediately.

And just before the end of the year all 12000 MT of HCB waste were shipped by train to the port of Ilyichevsk. Then the big bags were reloaded onto the ship and on January 13th, 2014 the ship left the Ukrainian territory waters going to France.



Left side: Loading of HCB in big bags in the harbor

Right side: transport OCB big bags to the port of Ilyichik

It is important to say that the completion of this job was done under the permanent supervision of specialists of National Academy of Science, State Sanitary Inspection, State Ecological Inspection and was monitored by the FAO International Consultant.

That was the end of world biggest HCB storage, but not of course the end of the problem. Enormous quantity of contaminated soil in polygon area, polluted ground water etc. Finally the threat of pollution of Dniester from the quarry is still on the agenda of the state. However, the most toxic waste was already exported and the whole situation became more controlled then.

[back](#)

4. HOT NEWS: FAO AND EU TO HELP BELARUS REDUCE RISKS FROM DANGEROUS PESTICIDES

<http://www.fao.org/news/story/en/item/213870/icode/>

FAO and EU to help Belarus reduce risks from dangerous pesticides
New agreement expected to step up cooperation between FAO and Belarus



Ludmila Nizhevich, Deputy Minister for Agriculture and Food of Belarus, and Vladimir Rakhmanin, FAO Assistant Director-General for Europe and Central Asia, at the signing ceremony.

11 February 2014, Rome – FAO in cooperation with the European Union will help Belarus to dispose of obsolete pesticides and reduce risks from pesticides used in agriculture in the future, under a new agreement signed today.

Over the next two and a half years, FAO will provide technical assistance to Belarus in managing its stocks of obsolete pesticides, building capacity to minimize the threats from hazardous waste to human health and the environment, as well as strengthening legislation and building capacity in the management of pesticide containers.

Together with the Government of Belarus, FAO will identify and assess the most highly contaminated sites with the aim to mobilise resources for risk reduction; promote alternatives to the most hazardous chemicals in use; and, develop communication strategies to raise awareness among farmers and the public.

“This is an important project for FAO, where our organization has a unique experience”, said Vladimir Rakhmanin, FAO Assistant Director-General for Europe and Central Asia. “This project is also a solid step forward for strengthening cooperation between FAO and the Republic of Belarus”.

Dangerous stocks

The agreement is a part of a four-year, FAO-EU partnership project on pesticide management launched in 2012 across the former Soviet Union. The EU is contributing €6 million to the initiative, and FAO, which acts as an implementing agency, has allocated €1 million in funding.

With this agreement, a total of six countries have now joined the initiative: Armenia, Belarus, Georgia, Kyrgyzstan, Moldova and Ukraine. The project foresees disposal of over 1 000 tons of obsolete stocks from these countries until 2016, although Ukraine has already removed its obsolete pesticides stocks.

It is estimated that around 200 000 tons of obsolete pesticides, around 40 percent of the world's stockpiles, can be found in twelve former Soviet Union republics: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Kept in tens of thousands of unprotected sites, they pose a serious threat to peoples' health and the environment.

These stocks have accumulated during the Soviet era due to centralized supply systems, banning of products due to environmental and health concerns and a lack of capacity to dispose of obsolete stocks in an environmentally sound manner.

[back](#)

5. NEW FRENCH LAW WILL BAN NON-AGRICULTURAL USE OF PESTICIDES FROM 2020

<http://www.env-health.org/news/latest-news/article/new-french-law-will-ban-non>

The French parliament has adopted a law which prohibits the private or public use of pesticides from 2020 in green areas, forests or public space.

The law, which is to start from 1 January 2020 for private individuals and the public excludes the use of pesticides on railways, airport runways or motorways.

From 1 January 2022, it will be prohibited to place pesticides for non-professional use on the market, to be sold, used or in the possession of someone. Anyone using or found with banned pesticide products could be imprisoned for up to six months with a 30,000 EUR fine. These prohibitions do not apply to the necessary measures such as the destruction and prevention of the spread of pests.

All groups in the French parliament voted for the proposal except for the Union pour un Mouvement Populaire (UMP) who asked that 'weekend gardeners' have more time to learn about no longer using pesticides.

According to a report by the French Commission for Sustainable Development of the Assembly, the non-agricultural use of pesticides is between 5 and 10% of practices and 45% of French people have a garden or a vegetable patch.

Originally posted on 6 February 2014

[back](#)

6. A LIFE + PROJECT “DISCOVERED” LANDS IN SPAIN

According to the 2012 call of the LIFE + Environment Programme, the European Commission has awarded the project ***“Lab to field, soil remediation demonstrative project: new ISCO application to environmental Multicomponent DNAPL problem ”*** (DISCOVERED- LIFE12 ENV/ES/000761) to be developed in Sabiñánigo, Spain.

The problem of environmental contamination in Sabiñánigo, particularly in Bailín, arises from the **old toxic waste dump containing waste products such as alpha-beta-gamma-and delta-epsilon-HCH (and other POPs)** from a former lindane producing factory in the area, which has led to the appearance of a pollution plume and a DNAPL (Dense non-aqueous phase liquid) moving on the bottom of the below lying aquifer. This, represents a threat to the main sensitive receptor identified in the area, the Gállego river, 800m away.

The DISCOVERED sets out a **demonstrative initiative to decontaminate the Bailín aquifer** by an innovative technique which deals with an in situ chemical oxidation with activated persulfate for dense pollutants.

Through a pilot scale remediation test based on proved laboratory results, DISCOVERED **conclusions will be transferable to other European countries** with similar problems providing a high efficiency and low cost technique.

The project will be coordinated by the General Directorate of Environmental Quality of the Aragon Government in cooperation with IHPA (The International HCH & Pesticides Association) and SARGA (Aragon Company of Agri-environmental Management) as associated beneficiaries.

As announced in Kiev at the 12th Forum in November 2013, **Zaragoza will be the venue for the 13th Int. HCH & Pesticides Forum to be held in 2015.**

Silvia Hernández Ugencio
Technical Manager
Discovered Project
SARGA
Ph: (+34) 976 07.00.00 ext 329
lifediscovered@sarga.es
Skype name: life.discovered

[back](#)

7. NEWSLETTER: IMPROVED PESTICIDES AND CHEMICALS MANAGEMENT IN THE FORMER SOVIET UNION GCP/RER/040/EC

Review of 2013

volume 1/ January 2014

Newsletter



Improved pesticides and chemicals management in the
Former Soviet Union GCP/RER/040/EC

Inside this Issue

Review of 2013:
Year of Preparation, including:

Dealing with problems from
the past

Looking towards a
sustainable future

Communication, capacity
assessment and education are
the key to pesticide risk
reduction



**MORE FOOD
LESS RISK**

**PESTICIDE
RISK
REDUCTION**

Highlights of 2013

2013 can be seen as the year of preparation. Significant progress has been made in setting up the structures and systems which will allow us to accelerate project implementation in 2014 and 2015. The old saying “a failure to plan is a plan to fail” is true of all large projects such as this and it is pleasing to see that the plan is now set and the pieces of the jigsaw are all in place. We have come a long way in a short time towards achieving our aim of reducing the risks from pesticides on public health and the environment. There is still a long way to go but we now have a very clear picture on what we can achieve and how we can achieve it. 2013 also saw Ukraine join the project making it five countries with active agreements (Armenia, Georgia, Kyrgyzstan, Moldova and Ukraine). Negotiations have also progressed with Azerbaijan, Belarus and Tajikistan and it is hoped they will join the project as formal members in early 2014.

Dealing with problems from the past

The project aims to reduce risks from the major stockpiles of obsolete pesticides scattered across the region. Many of these stockpiles of hazardous pesticide waste are stored under poor conditions with the risk of leakage into the environment increasing as time passes.

Inventory:

In 2013 we have made progress in identifying stocks in Kazakhstan, Kyrgyzstan and Tajikistan. Plans have also been developed for completion of national inventories in Armenia and Georgia in early 2014. The completion of these inventories is critical to the development of a tender for disposal services scheduled for 2014.

Environmental risk assessment:

In September a regional training was held in Georgia in cooperation with Milieucontact International (MKI). The training focused on the use of inventory data for the development of Environmental Assessment and Environmental



Environmental risk assessment
regional training in Tbilisi,
Georgia



International Conference
Contaminated sites 2013 in
Bratislava, Slovakia



Safeguarding training 2013 in
Pascani, Moldova

Management Plans. Representatives from nine project countries attended the training and a plan has been developed to assist signatory countries to elaborate their plans in early 2014. The plans are essential to allow the safe implementation of any risk reduction strategies.

The issue of assessment and identification of remediation options for sites contaminated with pesticides is a major concern to all countries in the region. The project supported the attendance of representatives from Azerbaijan, Moldova and Uzbekistan to the European Conference on Contaminated Sites held in Bratislava in May. The project team was joined by representatives of Blacksmith Institute who have extensive experience in developing site investigation methodologies. As a result of discussions an agreement has been reached with BI for the completion of a regional survey of contaminated sites resulting in a relative prioritisation based on risks to public health and the environment. The details of the activities were presented to the 2013 SC and will be implemented in 2014.

The project also completed a review of pesticide container management needs in Belarus and Ukraine in late 2013. The preliminary results were presented at the 2013 SC meeting in Kiev, Ukraine. The interest in this subject was significant across all countries and as a result a plan has been developed to extend the scope of this work across the region in 2014.

Safeguarding:

One of the top priority sites identified as far back as the Steering Committee meeting held in Moldova in 2012 is the former pesticide store at Pascani near the Moldovan capital Chisinau. A national training on development of repackaging and safeguarding plans was held in Moldova, again in cooperation with MKI. The training has allowed for development of a detailed plan for site remediation which will feature in the tender for disposal services to be issued in early 2014. A preliminary site investigation of the Chishmikiioi pesticide burial site was also made using the newly developed FAO Rapid Environmental Assessment for contaminated sites methodology.

All the above activities can be considered as contributing to developing capacity at national level so assisting countries to meet the requirements of the Basel, Rotterdam and Stockholm Conventions.



Looking towards a sustainable future

Dealing with the problems from the past is only part of the story. Improved management of new pesticides used in food protection and public health is covered under the FAO / WHO *Code of Conduct for Pesticide Management* (the Code). The Code covers all aspects of the pesticide life-cycle from production, quality assurance and testing, registration, distribution and use. The project has been designed to focus on reviews of national pesticide legislation, to complete national reviews on the pesticide life-cycle and to study possible alternatives to the most highly hazardous pesticides which are still widely used in many countries in the region. This work has been supported staff from the FAO Regular Programme based in FAO HQ in Rome and the regional offices in Budapest and Ankara.

Pesticide legislation:

Reviews of national pesticide legislation were completed in 9 countries in 2013. The national pesticides legislation in Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan were assessed against the FAO International code on pesticides management and European Union Regulations as well as the relevant multilateral environmental agreements. These efforts have been supported by the FAO Legal Service in Rome.



Regional Workshop of
Pesticides life-cycle
assessment in Kiev, Ukraine

Pesticide life-cycle:

Reviews of national pesticide life-cycle management were completed in Armenia, Azerbaijan, Georgia, Kyrgyzstan, Moldova, Tajikistan and Ukraine during 2013. The studies allowed for the identification of strengths and weaknesses, challenges and needs including an in-depth analysis of their present farming/cropping systems.

Alternatives to Highly Hazardous Pesticides (HHPs):

At the same time as the review of pesticide life-cycle management a study of the potential alternatives to the most highly hazardous pesticides used in the region was completed. Countries were asked to complete a questionnaire on regulatory measures imposed on highly hazardous pesticide products, and reported their use and registration status. Countries were also asked to provide information on known alternatives to the use HHPs with reported adverse effects on health and the environment.

The resulting country status reports from the three areas were presented to



Government officials during National Stakeholder workshops were countries priorities were identified issues during a Regional workshop. The findings were presented to the project Steering Committee in Kiev, Ukraine and endorsed.

Communication, capacity assessment and education are the key to pesticide risk reduction

The project has set an ambitious set of aims linked to improved awareness and communications, assessment of national and regional capacity in the areas of pesticide and waste management, the development of training materials and the provision of technical guidelines. All these elements are provided to all 12 project countries for them to adopt and use in line with national requirements. These so-called “cross cutting activities” ensure that all countries benefit from the project irrespective of conclusion of country project agreements.

Visibility and communications:

In the area of communications and visibility the project has succeeded in developing a strategy since the recruitment of a specialist in July 2013. This has resulted in the development of a defined brand for the project linked to the slogan “More Food Less Risk”. A set of leaflets, banners and posters have been developed which make our work visible to the wider public. These materials were used at the May 2013 Super COP for the three Chemicals Conventions where the project featured in a number of high level side events attended by the FAO Director General and CEO of the Global Environment Facility. More is needed but a solid foundation has been laid.



Clayton Campanhola, Co-Executive Secretary, Rotterdam Convention; José Graziano da Silva, Director-General, Food and Agriculture Organization (FAO); and Naoko Ishii, Global Environment Facility (GEF) CEO and Chairperson. Side event on “Sustainable Synergies through Sustainable Agriculture” at Sixth meeting of the Conference of the Parties to the Rotterdam Convention (RC COP6) 2013, Geneva, Switzerland

Disposal capacity review:

The issue of access to environmentally sound disposal for hazardous chemicals is a key aspect to making the management of obsolete pesticide and POPs waste sustainable. In 2013 the project commissioned a study on current waste management practices and legal framework across the region. At the Kiev SC meeting it was agreed to extend the scope of this assessment to include a feasibility study on development of national and regional capacity for sound management of hazardous chemical waste in the Eastern Neighbourhood and Central Asia countries. Progress has been slower than expected due to a surprising lack of national experts qualified to complete surveys at national level. The survey has now been redesigned to account for this.

Training:

Training can be considered one of the pillars to ensuring our work is sustainable and that future generations have the capacity to prevent the problems of pesticide accumulation in the future. In 2013 the project was successful in developing new training materials linked to the management of pesticide containers, management of obsolete pesticides, assessment and remediation of contaminated sites and on starting the process for adaptation of existing materials already offered in other regions. These teaching materials are aimed at post graduate level and combine to form a post graduate diploma course. In addition, work has started on the adaptation of a school training course entitled *"Setting up and running a school garden"*. In cooperation with Green Cross Belarus a secondary school course *"Pesticides and Me"* is also under development. It is hoped that by targeting these three sectors of education (primary, secondary and tertiary / Post graduate level) that capacity is built across the region at a number of levels.

Technical guidelines:

Linked to training the project has also made progress in the development of technical guidelines aimed at providing support to project partners in each area of work. In 2013 the process of screening of existing guidelines available internationally which could be adapted and translated for use in the region was completed. This led to the adaptation and translation into Russian of the guideline *Environmental Management Tool Kit volume 3* (environmental risk assessment). Progress was made in the development of *Environmental Management Tool Kit volume 5* (contaminated site assessment) with the scope and focus of the guideline defined and a first draft prepared. A second draft of the Basel Convention technical guideline on POPs Pesticide Management was also completed in 2013.



This projects co-funded by the European Union and implemented by FAO in partnership with Green Cross Belarus and Switzerland, IHPA, and MKI

The views expressed in this publication do not necessarily reflect the views of the European Commission

[back](#)