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The International POPs Elimination Project

*Fostering Active and Effective Civil Society Participation in
Preparations for Implementation of the Stockholm Convention*

Global egg sampling for by-product POPs - Interpretation of the analysis results and national reports

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International POPs Elimination Project – IPEP
Website- www.ipen.org

About the International POPs Elimination Project

On May 1, 2004, the International POPs Elimination Network (IPEN <http://www.ipen.org>) began a global NGO project called the International POPs Elimination Project (IPEP) in partnership with the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Program (UNEP). The Global Environment Facility (GEF) provided core funding for the project.

IPEP has three principal objectives:

- Encourage and enable NGOs in 40 developing and transitional countries to engage in activities that provide concrete and immediate contributions to country efforts in preparing for the implementation of the Stockholm Convention;
- Enhance the skills and knowledge of NGOs to help build their capacity as effective stakeholders in the Convention implementation process;
- Help establish regional and national NGO coordination and capacity in all regions of the world in support of longer term efforts to achieve chemical safety.

IPEP will support preparation of reports on country situation, hotspots, policy briefs, and regional activities. Three principal types of activities will be supported by IPEP: participation in the National Implementation Plan, training and awareness workshops, and public information and awareness campaigns.

For more information, please see <http://www.ipen.org>

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The views expressed in this report are those of the authors and not necessarily the views of the institutions providing management and/or financial support.

This report is available in the following languages: English language

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Project location: Interpretation of worldwide data - written from Arnika office in Prague (Czech Republic)

Arnika - Toxics and Waste Programme proposed to deliver hotspot reports with interpretation of the global sampling of eggs from chickens raised near hotspots for production of by-product POPs; dioxins, furans, PCBs, and HCB (16 - 18 reports together). All data needed for reports were collected almost until March 15th as proposed. In some cases there were delays due the late arrival of data from national NGOs in different countries. Hotspot reports with interpretation of eggs analysis for U-POPs (dioxins, PCBs and hexachlorobenzene) were prepared for hotspots in the following countries: Belarus, Bulgaria, Czech Republic, Egypt, India Uttar Pradesh and India Kerala, Kenya, Mexico, Mozambique, Pakistan, Philippines, Russia, Senegal, Slovakia, Tanzania, Turkey and Uruguay.

These are 17 individual hot spots reports all together. All of them were posted on IPEP website: <http://www.oztoxics.org/ipepweb/egg/Hotspot%20Reports.html>. Each release on the national level was performed by the national NGOs collaborating on this project. In some cases the reports were translated into national languages (Bulgaria, Egypt, Mexico, Russia and Uruguay).

The additional goals of these reports were to serve as basis for further NGO activities from all regions of IPEP and also as basis for developing a final global report. The global report called "The Egg Report" was finished before the Stockholm Convention COP 1, printed and distributed at this international event. In most countries the reports represent the first data about U-POPs levels in chicken eggs and in some cases the first data about POPs. In many cases these reports started a discussion about POPs monitoring and hotspots and therefore we consider the project to be very successful.

Table 1 from the global report gives an overview about the hotspots included in the reports and the main results.

Table 1. Persistent organic pollutants in free-range chicken eggs from 17 countries

Sampling proximity to:	Country	About the site	Levels of contamination
Cement kilns	Uruguay	Near Minas; 2 kilns; no monitoring; nearby stream for drinking water	2X background levels of dioxins ^a 1.1X EU action level for dioxins ^b 1.9X EU proposed PCB limit ^c
	Mozambique	Matola cement kiln factory; also obsolete pesticides stockpile; in semi-urban zone close to the city of Maputo	5X background levels of dioxins 1.7X EU limit for dioxins 2X EU proposed PCB limit
Chemical manufacturing	Czech Republic	Spolchemie Usti nad Labem; chlorinated solvents manufacturing and incinerator near confluence of two rivers	2X background levels of dioxins 1.5X EU action level for dioxins 0.2X EU HCB limit
	India – Eloor	Hindustan Insecticides Ltd.; manufacturing of DDT, lindane and other pesticides; POPs waste stockpile; hazardous waste incinerator; wetland area with direct discharges to creek and tidal inflow and outflow of Periyar River	14X background levels of dioxins 4.6X EU limit for dioxins
	Mexico	Pajaritos PEMEX petrochemical complex; Veracruz; VCM production for PVC plastic & incinerators	19X background levels of dioxins 6X EU limit for dioxins 1.5X EU proposed PCB limit
	Russia - Gorbatovka	Near “Orgsteklo” Dzerzhinsk; former PCBs production and hazardous waste incinerator, chlorinated hazardous wastes dumpsites	12X background levels of dioxins 4X EU limit for dioxins 4.5X EU proposed PCB limit
	Russia - Igumnovo	Near “Kaprolaktam” and “Korund” Dzerzhinsk; pesticides production, chlor alkali plant, PVC plastic and incinerator; near Oka River	44X background levels of dioxins 15X EU limit for dioxins 9X EU proposed PCB limit

Hazardous waste incinerator	Turkey	Izaydas incinerator; operated illegally for years; burns chlorinated waste	3X background levels of dioxins 1.7X EU action level for dioxins
Medical waste incinerator	India – Lucknow	Queen Mary’s Hospital; fly ash dumped into municipal drains; dense residential; more medical waste incinerators in city	20X background levels of dioxins 6.6X EU limit for dioxins 4.7X EU proposed PCB limit
	Philippines	Integrated Waste Management Inc. (IWMI) medical waste incinerator in Barangay Aguado; bottom ash containing dioxins is mixed in hollow concrete blocks; close to two rivers and a creek	9.7X background levels of dioxins 3X EU limit for dioxins 1.7X EU proposed PCB limit
Municipal waste incinerator	Slovakia	Koshice incinerator; 91,000 tons/year burned; serious fire in 2004	11X background levels of dioxins 3.8X EU limit for dioxins 2.3X EU proposed PCB limit
	Czech Republic – Liberec	Incinerator in large city; also medical waste incinerator, and metallurgy present in the city	2.5X background levels of dioxins 1.3X EU action level for dioxins 1.3X EU HCB limit
Metallurgical facility	Egypt	Metallurgical industry including many facilities in the city of Helwan; coal based chemical and cement industry; densely populated industrial area south of Cairo on the Nile	125X background levels of dioxins 42X EU limit for dioxins 6X EU proposed PCB limit
Obsolete pesticide dump	Tanzania	Vikuge DDT site; from Greece in 1980s; 282,000 ppm DDT in soil; no fence	3.5X background levels of dioxins 1.5X EU action level for dioxins
Thermal power plant	Bulgaria	Maritza East 2 plant in Kovachevo; largest dioxin source in NIP	64X background levels of dioxins 21X EU limit for dioxins 2.5X EU proposed PCB limit
Waste dump	Belarus	Bolshoi Trostenec site; close to water reservoir; drains to river; no waterproofing protection	3.8X background levels of dioxins 1.3X EU limit for dioxins 5X EU proposed PCB limit
Waste dump	Kenya	Dandora dump; dense residential; Nairobi River passes below	23X background levels of dioxins 7.6X EU limit for dioxins 4X EU proposed PCB limit

Pakistan	Municipal dumpsite near Charsadda road; also medical waste and incinerator ash; no waterproofing protection; close to water channel	2.9X background levels of dioxins 1.5X EU action level for dioxins
Senegal	Mbeubeuss dump; both municipal and hazardous waste; on lake bottom; one part lies in groundwater	35X background levels of dioxins 11X EU limit for dioxins 1.7X EU proposed PCB limit

^a Please see page 13 of “The Egg” report for an explanation of background levels of dioxins in eggs

^b European Union (EU) Council Regulation 2375/2001 established this threshold limit value for eggs and egg products. There is a stricter limit of 2.0 pg WHO-TEQ/g of fat for feedstuff according to S.I. No. 363 of 2002 European Communities (Feeding stuffs) (Tolerances of Undesirable Substances and Products) (Amendment) Regulations, 2002.

^c These proposed new limits are discussed in the document Presence of dioxins, furans and dioxin-like PCBs in food. SANCO/0072/2004.

We hope this brief overview provides a clear picture about the major results of the work under this project activity. We can not simply describe here all results presented in the reports but they are available at the website stated above. The most exciting thing about this project is that the global NGO community working within IPEN is interested to continue performing such joint international projects.

We would like also to acknowledge great support received from Joe DiGangi and Pat Costner to accomplish our job. Also cooperation with many NGOs from all listed countries was great.