



International POPs Elimination Project

*Fostering Active and Efficient Civil Society Participation in
Preparation for Implementation of the Stockholm Convention*

Public Campaign and Health Impacts of Pesticides

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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 Project Implementation Report

In order to ascertain and assess the contemporary situation in Volgograd Oblast in the sphere of application and storage of pesticides, we analysed available reports, relevant legislative acts and structural changes in different federal and regional administrative entities.

First of all, it is necessary to note that control and supervision in the sphere of safe management of pesticides and other agricultural chemicals got more complicated in the last 10 years, in parallel with introduction of market-based relations and changes in environmental regulation.

First, the range of pesticide suppliers substantially increased (now, there are more than 50 pesticide suppliers in the oblast) with a corresponding increase in the amounts of pesticides, delivered to the territory of the oblast. These changes facilitated the development of the secondary pesticide market which poses a real threat of supply of counterfeit and false pesticide preparations that might cause phytotoxic effects, environmental pollution and poisoning of animals and people.

Conditions of retail sale of pesticides are poorly controlled, as pesticides are mainly sold in small sales outlets, usually located in basements of residential buildings (posing a substantial health threat to local residents). In addition, in recent time, the number of specialised facilities for sale of pesticides decreased. As a result, pesticides and other plant protection chemicals are sold in ordinary shops, in addition to food or other consumer goods, which is absolutely intolerable.

Second, the restructuring of federal and regional authorities resulted in delegation of some functions (including control and supervisory functions) to newly established agencies such as the Russian Consumer Market Supervision Agency and the Russian Agricultural Supervision Agency. For example, Volgograd Oblast Directorate for Veterinary and Phytosanitary Supervision of the Russian Agricultural Supervision Agency was established only in January 2005 (the Directorate fulfils control and supervision functions in the sphere of management of banned and obsolete pesticides). The functions of such governmental entities as Plant Protection Facilities, that had accumulated substantial information and experience in dealing with pesticides-related problems, including problems of banned and obsolete pesticides, are now scattered between different federal and regional bodies.

Besides that, this January, the Federal Law on Local Self-government was enacted. The Law stipulates that parties responsible for storage of banned and obsolete pesticides include resources users (owners of storage facilities) or (most often) newly established municipalities. It is worth noting that there are more than 450 municipalities in the territory of Volgograd Oblast that usually have neither sufficient funds, nor skilled personnel for fulfilment of these functions.

According to official data of the Agriculture Committee of Volgograd Oblast State Administration, as of 01.04.06, there were 234.81 tons of banned and obsolete pesticides in the territory of the oblast.

Our review revealed that 153.2 tons of these pesticides (65%) are stored in makeshift metal containers, made from large steel pipes, welded on both ends. Only 30.7 tons of pesticides (13%) are stored in specialised pesticide storage facilities. Other pesticides are stored on the open ground under rainfall and snow. Some of these makeshift containers have already been damaged by corrosion and pesticides may contaminate the environment.

Inadequate decisions of sanitary facilities that allowed pesticides storage in these makeshift steel containers several years ago now results in serious health and environmental risks. Besides that, there are no safe technical options to remove pesticides from these containers.

In addition, agricultural facilities of the oblast have more than 2,919 tons of pesticide preparations with expired shelf life. After a laboratory analysis and estimation of contents of active agents, owners of these preparations may be issued documents, allowing their application according to prescribed application methods.

In 2004 - 2005, Volgograd Oblast Environmental Committee implemented some actions to eliminate banned and obsolete pesticides. As a result, stockpiles of obsolete organochlorine pesticides (30 tons) and mercury-containing preparations (granozan) were removed from the oblast.

Analysis of organisational arrangements of these works revealed serious deviations from the due procedures. For example, according to the report of Volgograd Oblast Committee for Environment and Natural Resources, in 2004, mixtures of unusable pesticides and HCCH-contaminated soil were transported to "Sygnal" Instruments Plant" Co. for final disposal. However, the report does not contain a document that could confirm that the Company received these pesticides for final disposal. There are no supporting documents on transportation operations, indicating that no official documents were completed on the waste removed.

Five organisations were involved in handling, loading, packaging, transportation and temporary storage of obsolete pesticides. However, none of these organisations has a license to participate in these operations. As a result, the liquidation of pesticide storage facilities caused local land contamination.

Jointly with local schoolchildren, we visited final disposal sites for banned and obsolete pesticides nearby Volgograd and surveyed local territories to identify potential unauthorised storages of banned and obsolete pesticides. Prior to these field visits we conducted special training sessions to study methods of inventory of pesticide storage facilities, based on the Methodological Recommendations for NGOs, developed by Eco-Accord Centre.

For example, we organised a field visit to Golenskiy hamlet (Ilovinskiy district), where works were earlier conducted for removal of banned and obsolete pesticides (DDT, HCCH and contaminated soil, 20 tons in total).

In the course of the field visit, we sampled soil, water and vegetables (watermelons and tomatoes). Even a visual examination of the former storage site allowed us to identify large amounts of pesticide preparations on the open ground. Schoolchildren compiled the environmental site description according to state standard GOST R 17.0.0.06-2000 on "the site for long-term storage and final disposal of waste, owned by a natural resources user".

Laboratory analysis of soil samples, taken at the disposal site, revealed the presence of Lindane (0.13 mg/kg). At the same time, the site is not listed in official reports of Volgograd Oblast Committee for Environment and Natural Resources, as, according to official reporting, all obsolete pesticides were removed from the site in January 2005.

Besides that, we organised field visits and collected soil and vegetation samples in Svetloyarskiy district. Residents of the district are known to have higher morbidity levels that are attributed to industrial facilities located near the city.

Analysis of samples of dry leaves, grass and vegetables collected in the Territory of Tsatsa Township, revealed presence of HCCH and 2,4 D. At the same time, samples of soil collected near the industrial waste disposal sites were clean. Vegetation samples were analysed in a specialised laboratory of the Centre of the Agrochemical Service.

Results of these works and analytical data were presented at a joint meeting of federal and regional environmental services, elected representatives of Volgograd Oblast Council, representatives of industrial

facilities, NGOs and mass-media outlets. Volgograd-Ecopress organised the meeting to discuss options for addressing the problem of banned and obsolete pesticides.

Participants of the meeting noted that now there are many control and supervisory organisations in the sphere, however, actually local authorities have to bear the main burden of these problems and they have no prior experience of dealing with these matters.

The meeting participants discussed several activities, proposed by the Committee for Agriculture to prevent environmental releases of pesticides with floodwater. These activities include an information campaign among agricultural producers of different ownership forms.

In order to ensure efficient use of oblast-level budget funds for addressing the pesticide problem in Volgograd Oblast, the meeting participants proposed establishing an initiative group, including representatives of participating organisations. In addition, they proposed developing a special program for elimination of banned and obsolete pesticides in the territory of Volgograd Oblast.

In order to resolve the problem of pesticides in makeshift steel containers (welded steel pipes), the meeting participants proposed involving specialised chemical protection units, operating at some industrial facilities of the city ("Khimprom", "Orgsintez", "Kaustik"). These units have the necessary equipment for these purposes.

Besides that, the meeting participants noted that industrial facilities of the city can process some part of the pesticides independently, using their technological equipment.

Participants of the meeting failed to reach a common conclusion on the issue of application of incineration technologies for elimination of pesticides. NGOs and some representatives of governmental bodies expressed their concerns about safety of incineration methods.

There are 26 tons of simtriazine pesticides in the oblast. The meeting participants proposed transferring these pesticides for free to some countries of the former USSR, where application of such pesticides is not prohibited (e.g. to Belarus). Some participants also noted that it would be important to consult stakeholders in these countries to better clarify the situation with simtriazine before transferring these pesticides to the targeted areas.

All participants of the meeting agreed with the proposal on regular mutual information exchange between interested parties on relevant activities in different sectors.

Table 1. Levels of pesticides in various vegetables and juices
DL = under detection limit of 0.002 mg/l

Vegetables/samples	Measured agents	Levels in juice mg/kg dry matter	Levels in samples mg/kg dry matter
Mikhailovskiy district			
<i>Sweet pepper Capsicum annum L.</i>	2,4-D	65.6	5.4
	HCCH and its isomers:	DL	DL
	α - isomer	DL	DL
	β -isomer	DL	DL
	γ - isomer	DL	DL
	DDT and its metabolites	DL	DL
<i>Eggplants Solanum melongena</i>	2,4-D	DL	DL
	HCCH and its isomers:	DL	DL
	DDT and its metabolites	DL	DL
Sredneakhtubinskiy district			
<i>Tomatoes</i>	2,4-D	DL	DL
	HCCH and its isomers:	DL	DL
	α - isomer	DL	DL
	β -isomer	DL	DL
	γ - isomer	DL	DL
	DDT and its metabolites	DL	DL
<i>Cucumbers</i>	2,4-D	DL	DL
	HCCH and its isomers:	DL	DL
	α - isomer	DL	DL
	β -isomer	DL	DL
	γ - isomer	DL	DL
	DDT and its metabolites	DL	DL
Ilovinskiy district, Golinskiy hamlet			
<i>Watermelons</i>	2,4-D	DL	DL
	HCCH and its isomers:	DL	DL
	α - isomer	DL	DL
	β -isomer	DL	DL
	γ - isomer	DL	DL
	DDT and its metabolites	DL	DL
<i>Tomatoes</i>	2,4-D	DL	DL
	HCCH and its isomers:	DL	DL
	α - isomer	DL	DL
	β -isomer	DL	DL
	γ - isomer	DL	DL
	DDT and its metabolites	DL	DL
<i>Water (source 1) Golinskiy hamlet</i>	2,4-D	DL	DL
	HCCH and its isomers:	DL	DL
	α - isomer	DL	DL
	β -isomer	DL	DL
	γ - isomer	DL	DL

	DDT and its metabolites	DL	DL
<i>Soil, Golinskiy hamlet</i>	2,4-D	DL	-
	HCCH and its isomers:	0.13	-
	α- isomer	DL	DL
	β-isomer	DL	DL
	γ- isomer	0.13	-
	DDT and its metabolites	DL	-
Surovikinskiy district, Lysov hamlet			
<i>Well water, Lysov hamlet</i>	2,4-D	DL	-
	HCCH and its isomers:	DL	DL
	α- isomer	DL	DL
	β-isomer	DL	DL
	γ- isomer	DL	DL
	DDT and its metabolites	DL	-
<i>Water from the Liska river, Lysov hamlet</i>	2,4-D	3.66 mg/l	-
	HCCH and its isomers:	DL	DL
	α- isomer	DL	DL
	β-isomer	DL	DL
	γ- isomer	DL	DL
	DDT and its metabolites	DL	-
<i>Cucurbits, Lysov hamlet</i>	2,4-D	0.904	-
	HCCH and its isomers:	DL	DL
	α- isomer	DL	DL
	β-isomer	DL	DL
	γ- isomer	DL	DL
	DDT and its metabolites	DL	DL
<i>Soil, Lysov hamlet</i>	2,4-D	0.79	-
	HCCH and its isomers:	0.18	
	α- isomer	DL	DL
	β-isomer	DL	DL
	γ- isomer	0.18	-
	DDT and its metabolites	DL	-

Vegetables/samples	Measured agents	Levels in juice mg/kg dry matter	Levels in samples mg/kg dry matter
Svetloyarskiy district			
<i>Sweet pepper Capsicum annum L.</i>	2,4-D	34.7	-
	HCCH and its isomers:	DL	DL
	α- isomer	DL	DL
	β- isomer	DL	DL
	γ- isomer	DL	DL
	DDT and its metabolites	DL	DL
<i>Potatoes</i>	2,4-D	DL	DL
	HCCH and its isomers:	DL	DL
	DDT and its metabolites	DL	DL
<i>Beets</i>	2,4-D	DL	DL
	HCCH and its isomers:	0.23	-
	α- isomer	DL	DL
	β- isomer	DL	DL
	γ- isomer	0.23	-
	DDT and its metabolites	DL	DL
<i>Sweet pepper Capsicum annum L.</i>	2,4-D	34.7	-
	HCCH and its isomers:	DL	DL
	DDT and its metabolites	DL	DL
<i>Beets</i>	2,4-D	DL	DL
	HCCH and its isomers:	0.23	-
	α- isomer	DL	DL
	β- isomer	DL	DL
	γ- isomer	0.23	-
	DDT and its metabolites	DL	DL