



COUNTRY REPORT

Legal and Technical Assessment
of the Management of Obsolete
Pesticides

Republic of Uzbekistan



Food and Agriculture Organisation
of the United Nations



International HCH & Pesticides Association



Country Report

Legal and Technical assessment of the management of
obsolete pesticides Republic of Uzbekistan

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The European Union and the Food and Agriculture Organization of the United Nations (FAO) have invested € 7 million to assist countries in Central Asia and Eastern Europe to foster an environment of cooperation and capacity development to eliminate the risks from obsolete pesticides and Persistent Organic Pollutants (POPs) and to develop a more sustainable agriculture in the future. This report was prepared by the International HCH and Pesticides Association (IHPA) under a contract from FAO to assess the need for, and legal and technical capacity for, the sound management of hazardous waste in the country and to develop a “road map” for achieving self-sufficiency in sound hazardous waste management in the region.

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Data, Annexes and Working Document

All original data and Annexes are available in a separate document: 'Working Document, Legal and Technical Assessment of the Management of Obsolete Pesticides, Republic of Uzbekistan'

Annexes:

- Annex 1: Terms of Reference for IHPA for coordination of a Disposal Study for Obsolete Pesticides in the Former Soviet Union
- Annex 2: Information remaining burial and storage sites (from World Bank Project report 2010)
- Annex 3: Overview Obsolete Pesticides Stockpiles (from World Bank Project report 2010)
- Annex 4: Volumes of obsolete chemicals, spots with chemical wastes and contaminated areas

The Working Document can be found in the library of IHPA at <http://www.iHPA.info/resources/library>

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List of acronyms

ADR	International Carriage of Dangerous Goods by Road	RUz	Republic of Uzbekistan
BAT	Best Available Techniques	SNCO	State Non-Commercial Organization
BEP	Best Available Practices	SAICM	Strategic Approach to International Chemicals Management
CIS	Commonwealth of Independent States	TBD	To be determined
CMR	Conditions for the international carriage of goods by road. (original: Convention relative au contrat de transport international de Marchandises par route	TEQ	Toxic Equivalent
DDT	Dichlorodiphenyltrichloroethane	UNDP	United Nations Development Programme
DOT	US Department of Transport (DOT) classification of dangerous material	UNEP	United Nations Environment Programme
EA	Environmental Assessment	UNITAR	United Nations Institute for Training and Research
EC	European Commission	USSR	Union of Soviet Socialist Republics
EEC	European Economic Community	WB	World Bank
EECCA	Eastern Europe, Caucasus and Central Asia	WM	Waste Management
EIA	Environmental Impact Assessment	WTO	World Trade Organisation
EMP	Environmental Management Plans		
EMTK	Environmental Management Tool Kit for Obsolete Pesticides (FAO)		
EU	European Union		
FAO	Food and Agriculture Organization of the United Nations		
GDP	Gross Domestic Product		
GEF	Global Environment Facility		
GHS	Globally Harmonized System of Classification and Labelling of Chemicals		
HCB	Hexachlorobenzene		
IATA	International Air Transport Association		
IMDG	International Maritime Dangerous Goods Code		
LOW	Law of Waste		
MAC	maximum allowable concentration		
MinNP	Ministry of Nature Protection (in Part I)		
MoNP	Ministry of Nature Protection (in Part II)		
Mln	Million		
MT	Metric tonne (equal to 1000 kilogram. Also called tonne)		
N/A	Not Applicable		
NGO	Non-Governmental Organization		
NIP	National Implementation Plan		
OP	Obsolete pesticide		
OSCE	Organization for Security and Co-operation in Europe		
PCB	Polychlorinated biphenyl		
PDF-B	Project Development Facility (GEF)		
POP	Persistent Organic Pollutant		
PRTR	Pollutant Release and Transfer Register		
PSMS	Pesticide Stock Management System (FAO)		
RID	International Transport of Dangerous Goods by Rail (original: Reglement concernant le transport international ferroviaire des Marchandises Dangereuses)		



Introduction

Within the EC / FAO project GCP/RER/040/EC “Improving capacities to eliminate and prevent recurrence of obsolete pesticides as a model for tackling unused hazardous chemicals in the Former Soviet Union” the International HCH & Pesticides Association (IHPA) has been tasked to develop capacity for management of hazardous wastes through the example of OPs and POPs pesticides. There is an estimated 200,000 tonnes of these materials known to be affecting the countries of the Former Soviet Union. Much of the previous work on disposal of waste from the countries has looked to export thousands of tonnes of pesticide stockpiles to high temperature incinerators operated commercially in EC member states. Whilst this strategy meets all international environmental compliance requirements it is prohibitively expensive. The vast distances involved for transport of waste from Central Asian Countries to facilities in Europe makes the option of finding a local solution appealing based on both risk management and cost considerations. Moreover, the huge volumes of hazardous waste generated in the region increases the need for local destruction hazardous waste capacity. Based on the national Legal and Technical assessment reports of the management of OPs that were produced in 2014, the “Road Map to Establishing Environmental Sound Management of POPs Pesticides and other Hazardous Waste in the EECCA region”, was published at the end of 2015.



The Disposal Study involved (see Terms of Reference in Annex 1 of the Working document) the following activities:

- Review of existing policy framework for the management and elimination (including inventory, assessment and transport) of POPs and OPs in line with the requirements of the respective EU Directives/ Stockholm Convention;
- Conduct benchmarking of current POPs management (including (temporary) storage and destruction) against international best practice on BAT/BEP as set out by the Basel / Stockholm Convention working groups; highlight and describe best ongoing practices in the country;
- Review of existing and planned treatment options for POPs pesticides, OPs and related hazardous wastes, contaminated containers and contaminated land;
- Assess potential treatment facilities such as existing modern cement kilns, as well as planned and/or implemented pilot plant investigations which can develop in the next years to important market players;
- Assess the Russian-Belarus-Kazakhstan customs union and its implications for hazardous waste in and through Russia, including an assessment of 1) experiences over the last years practical implementation and of 2) alternative transport routes from the republics avoiding Russian territory. This was completed with due reference to the requirements of the Basel Convention;
- Assess access (by road, train or water) to treatment options and economics of transport of waste across the region to treatment facilities/alternative storage facilities; and,
- Review existing POPs data (OPs and PCBs) as far as available, and make efforts to collect, if possible, total hazardous waste stream data as set out in national profiles such as the UNITAR chemicals profile. This was collated for the country in order to assess the potential need for future investment per country/region. Provide estimates of the scale of investments (in terms of tonnes of POPs for disposal) and a rough estimation of their national distribution, tonnes of other OPs, distribution and quantities of contaminated land and contaminated containers;
- Assess status of recycling options for empty containers or already planned or ongoing programs and initiatives;
- Prepare country summary sheets on findings and identify the gaps in information;
- Compile report of study findings, including recommendations for filling the information gaps.

Expected Outputs based on the Terms of Reference:

- i. Summary report of existing policy framework for the elimination and management of POPs and OPs (12);
- ii. Analysis of barriers (technical, legal, economic) to the development of national and regional waste management capacity;
- iii. Report on opportunities for introduction of new technologies (thermal and non-thermal) e.g specific stockpiles (DDT and HCH waste);
- iv. Summary report of existing and potential treatment facilities, pilot plant facilities and empty container recycling facilities/initiatives (12 countries);
- v. Report on POPs waste in relation to total hazardous waste market and approaches for Investment plan for POPs destruction for the region;
- vi. Presentation of the draft report to the SC meeting in February 2015, finalization of the report incorporating received comments.



Part I of the study on the assessment of the legal framework for pesticides waste management is structured into five main sections:

- I. General background information (Participation in international treaties)
The introduction includes general information about international cooperation and the state's participation in international treaties in the waste management field. The purpose of this section is to identify and clarify the state's position in the field of waste management at an international level.
- II. Regulatory framework on waste management
The first chapter is about the political and legal framework that determines the policies or strategies at the national/federal level aimed at the prevention of waste generation and minimization of risks associated with wastes. Also this section provides a general overview of all national laws and regulations that govern hazardous waste management.
The second chapter on specific laws and regulations that govern waste management is focused on the determination of all laws regarding waste management across different sectors such as: import/export, landfill of waste, incineration, shipment of waste and general waste management.
The third chapter on "Institution(s) involved in waste management (focus on pesticides)" studies the relevant institutions that are involved in waste management, and their obligations and responsibilities, in order to identify the competent organizations that are responsible for waste management planning.

III. Analysis of existing national waste management legislation

This section is dedicated to an analysis of existing national waste management legislation that reflects the legal framework regarding the different activities of waste management such as:

- Register of pesticides waste and general classification of waste
 - Licensing
 - Trans-boundary movement, import/export rules
 - Economic initiatives regarding transport
 - Labelling requirements
 - Packaging and containers
 - Emergency procedures
 - Disposal obligations
 - Incineration
 - Recording, monitoring, and reporting
 - Offences and penalties
 - Official controls and inspection
 - Research and development
- IV. Information supplementing legal analyses – from other experts includes three main topics:
- Pesticides manufacturing industry
 - Management of OP Stocks – legal provisions regarding the conditions/methods for inventory/storage/disposal activities related to obsolete stocks.
 - Methods used for treatment of pesticides wastes



V. Disposal, storage recycling and recovering facilities – practical information from other experts is composed of four topics:

- Disposal facilities
- Storage facilities
- Recycling facilities
- Recovery facilities

This section aims to identify the legal norms that apply to any disposal/storage/recycling/recovery facilities of pesticides waste.

Part II of the study, the national technical assessment (waste management report)

We realized that in order to fulfil the specific conditions on capacity building and benchmarking in each country, as specified in the terms of reference, an adequate analysis of the whole cycle on how to deal with OPs was required. This applies from the very beginning of the process, including who is responsible and who is involved in every step from finding the OPs to the final step of complete elimination. Having carefully worked this out, it was then necessary to design a clear and standardized structure that all national waste management consultants could simply follow in order to assess each step. It was also important to allow comparison between the assessments of each country and therefore it was decided to develop a standardized template for each report using a tabular format. For clarity and brevity the entries have been made as concise as possible.

The report has been built up in four main sections containing a large number of individual items that have been assessed, these being:

1. Benchmarking of current POPs management against international best practice

This section includes detailed information on each step of all actions necessary for elimination of OPs and POPs pesticides:

1. Institutional arrangements that include the responsibilities of the concerned organisations in the country.
2. Inventory with all national/regional inventory updates,

data sources and existing inventories, first National Implementation Plan (NIP), recent NIP update (specifically on new POPs), UNITAR Chemicals Profile, if existing, National Pesticides and/or POPs Inventory, FAO PSMS Inventory and other information.

3. Environmental Assessment consistent with national requirements, and also with International experience often implemented by the UN and other agencies. This includes the capacity of the government and private sector to develop such an Environmental Assessment, as well as the FAO stages in Environmental Assessment (EA) and Environmental Management Plans (EMP) experiences from the FAO Toolkit EMTK v 3.
4. Inventory and Environmental Assessment Management including vital questions on the inventory and the assessment, and if the organisational capacity is in place to complete the task. For example if the relevant organisation is in place and also operational, and if so whether all managers and coordinators are in place and operational, as well as if all field teams are established and operational. Also if all Inventory data management people are in place and operational, whether the National/Regional Inventory is being updated or not, a National Pesticides and/or POPs Inventory has been established, and if a contaminated sites register exists or not.
5. Safeguarding defining what has been implemented at national and international level such as under the FAO projects.
6. Storage and transport includes all items on packaging, containerization, storage and transportation with assessment of transport regulations, driver regulations, existence of storage regulations and available storage capacity, and Incident and accident reporting.
7. Disposal, assessing the national, international and FAO experience to date, including reporting on the technologies that have been selected, the process on transboundary transport under the Basel Convention and the national transport within the country, disposal capacities in the country, quality and standards applied (national/international), and current ownership of facilities.
8. Containers assessing the national and international experience, the FAO supported plans, amounts and

type of empty containers and/or packaging materials, and the use of collection centres for empty containers.

2. General overview of POPs and other hazardous waste data

This section has been set up around the following six categories:

- A. Agricultural chemical waste that includes OP waste, POPs pesticides waste and new pesticides waste such as counterfeit pesticides, waste empty containers, and contaminated sites. These contaminated sites consist of burial sites or polygons (landfills) which often contain huge volumes of waste, storage sites, and sites which are still in use;
- B. Industrial chemicals,
- C. By-products,
- D. Petroleum wastes,
- E. Inorganic wastes,
- F. Health care high risk waste.

This effectively means the majority of hazardous waste has been listed. It has also to be mentioned that many of the required data are either preliminary or missing as many countries are in a first stage of such an assessment. Often quantities are listed but not verified in the field. The data also change rapidly as new inventory and assessment activities such as the current NIP updates are planned, so the data can be seen as a “snapshots” of the situation and are likely to be updated again in the near future.

3. Existing and planned treatment options for POPs pesticides, OPs and related hazardous wastes, and contaminated land

This section assesses existing and potential destruction plants, planned facilities and planned and/or implemented pilot plants, as well as existing and/or planned empty container (plastic and/or steel) recycling facilities or initiatives in the country. Data that need to be entered are: type of plant or technology, address/location, contact person (name/contact details) and a brief summary of the technical data, with treatment capacity, types hazardous waste permitted for treatment, permit information, and date of permit. However, it should be noted that there are only a very few plants available in most of the countries.

4. Transportation logistics

This section includes five main issues:

1. the assessment of various transport alternatives from main stockpile locations to the existing and or planned treatment facilities including cost estimates;
2. Assessment of possible storage networks: waste transfer stations e.g. at main railway stations or at existing landfills (polygons) or waste handling stations;
3. Assessment of transport capacity;

4. Reference to the requirements of the Basel Convention and previous experience of international export Implications of custom facilities; and
5. A brief description of the cases that should be reported.

Due to its clearly defined structure the report is very easy to update periodically, for the use of the national authorities and donors that are interested to support further actions on the elimination of OPs and POPs in the future.

The main report is available in both English and Russian, and all country reports will be accessible in the library of IHPA at <http://www.ihpa.info/resources/library/>

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Summary

for the Republic of Uzbekistan

It should be noted that the conclusions and recommendations in this report have been made on the basis of the information available in 2014. Additionally, this legal and technical assessment of the management of OPs report was followed by a second report: “Road Map for the Development of Hazardous Waste Management in the EECCA Countries”. During the work on the last report additional information is added per country in the country summary in the Road Map report.



Part I. Assessment of the legal framework for pesticides waste management in the Republic of Uzbekistan

Major findings

Uzbekistan is not a party to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and has signed, but not ratified the Stockholm Convention on Persistent Organic Pollutants. Uzbekistan is party to the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal under the status of accession.

The Law of the Republic of Uzbekistan “On Nature Protection” from 09.12.1992 provides the legal basis for the environmental requirements for radioactive and chemical substances. Scope of the Act covers environmental compliance, establishment of standards and regulations in the manufacture, storage, transport, use, disposal and dumping of chemicals.

Law of the Republic of Uzbekistan “On Air Protection” from 27.12.1996 N 353-I provides the legal basis for the production or the use of chemicals, develop their maximum allowable concentrations in the atmosphere, prevention and reduction of harmful chemical, physical, biological and other impacts on air.

Law of the Republic of Uzbekistan “On protection of agricultural plants from pests, diseases and weeds” dated 03.08.2000. This law provides a legal framework to ensure compliance with sanitary norms, rules and hygienic standards, ensuring sanitary and epidemiological welfare of the population, the storage, use, neutralization, recycling and disposal of chemicals, biological agents and materials. The scope of the Act covers the regulation of relations connected with protection of crops from pests, diseases and weeds, preventing the harmful effects

of plant protection products on human health and the environment.

Law of the Republic of Uzbekistan “On state sanitary supervision” from 03.07.1992 provides a legal framework to ensure the rights of officials to prohibit the use of chemicals, tools, and techniques used in the practice of drinking-water supply, production and processing of food, stimulants and growth regulators, agricultural plants and animals, pesticides.

The definition of “pesticides” and “depots” is given in the instructions on the formation and applications of chemical and biological products of agricultural producers, approved by Order of the Minister of Agriculture and Water Resources of 04.05.2005 N 115 (MJ since 06.07.2005 N1490).

In the structure of state administration bodies are more than 30 ministries, committees, institutions, associations, companies and government agencies involved in the regulation of chemicals.

The legislation does not contain specific regulations for packaging of pesticides.



Part II. Technical assessment of the management of OPs and POPs waste and soil contamination in the Republic of Uzbekistan

- **Identify the gaps in information (for all 5 sections):**

Lack of public access to information on obsolete and POPs pesticides and other obsolete chemicals. At present there is no access of actual information. This is due the fact that on December 9th 2012, a decree was adopted where information about the 13 obsolete and POPs pesticide polygons (landfills) was from that date no longer available and these 13 polygons, formerly owned by the government belonged from that date to the private entity of JSC 'Uzbek Chemical Industry'. Therefore all information about POPs is old and new updated information is not available and also not accessible. The public is not aware about these issues.

- **Analysis of barriers (technical, economic) to the development of national and regional waste management capacity:**

Make information on POPs and POPs pesticides publicly available and initiate public awareness programmes.

Due to lack of actualized information it is not possible

to make any statements on the technical and economic issues.

- **Analysis of opportunities (technical, economic) for the development of national and regional waste management capacity:**

Due to lack of actualized information it is not possible to make any statements on these technical and economic issues.

- **Other findings that need to be addressed:**

none



Suggestions and recommendations for future activities

Based on above mentioned findings, it can be recommended for Uzbekistan to:

- enhance the activities for ratification of the Basel, Rotterdam and Stockholm Conventions.
- To make a detailed evaluation of the national legislation of Uzbekistan, start an update and improve the legislation for obsolete and POPs pesticides and other chemicals as part of the management of hazardous waste according to the best practises as applied in the European Union.
- independent from the ratification of the Stockholm Convention, to request short term the GEF financial support for the drafting and implementation of the National Implementation Plan in order to get a complete overview of all POPs, including new POPs and updates of information on POPs pesticides and develop a National Action Plan for final POPs elimination and include the necessary public awareness campaigns.
- to use the recommendation 7.5 made in the UNECE (EPR) report , 2011 stating:
“As soon as possible, the Ministry of Agriculture and Water Management and the State Committee for Nature Protection, should take initiatives to collect, process, utilize or destroy obsolete pesticides. One of the actions to be taken should be the construction of a central temporary storage site. In this case, processing and destruction of the obsolete pesticides could be postponed to the medium term.
There are 13 obsolete pesticide and chemical storage facilities in Uzbekistan. Some of these do not meet environmental and sanitary safety standards. The SCNP, the state stock company Uzkimesanoat and the Ministry of Health, together with the regional authorities, have prepared a draft complex plan of actions to ensure the environmental safety of the storage facilities.”
- Set up collection and recycling systems for empty containers





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