

**Working Document**  
Management of Obsolete  
Pesticides

**Kyrgyz Republic**



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## Part I – The Assessment of the legal framework on the pesticides waste management in Kyrgyz Republic

### Section I: General background information (International Treaties participation)

#### **The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (general information regarding statute of adaptation, signing and ratification, Focal Point Institute)**

The Convention was adopted on 10 September 1998 by the Conference of Plenipotentiaries on the Convention in Rotterdam, the Netherlands. In accordance with its article 24, the Convention was open for signature at Rotterdam by all States and regional economic integration organizations on 11 September 1998, and subsequently at United Nations Headquarters in New York from 12 September 1998 to 10 September 1999.

The Kyrgyz Republic signed the Rotterdam Convention on 11 August 1999 and ratified it on 25 May 2000

#### **The Stockholm Convention on Persistent Organic Pollutants (general information regarding statute of adaptation, signing and ratification, Focal Point Institute)**

The Convention was adopted on 22 May 2001 at the Conference of Plenipotentiaries on the Stockholm Convention on Persistent Organic Pollutants, Stockholm, 22-23 May 2001. In accordance with its Article 24, the Convention was open for signature at Stockholm by all States and by regional economic integration organizations on 23 May 2001 at the Stockholm City Conference Centre/Folkets Hus, and at the United Nations Headquarters in New York from 24 May 2001 to 22 May 2002.

The Kyrgyz Republic ratified the Stockholm Convention on 12 July 2006

#### **The Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal (general information regarding statute of adaptation, signing and ratification, Focal Point Institute)**

The Convention was adopted on 22 March 1989 by the Conference of Plenipotentiaries which was convened at Basel from 20 to 22 March 1989. In accordance with its Article 21, the Convention, which was open for signature at the Federal Department of Foreign Affairs of Switzerland in Berne from 23 March 1989 to 30 June 1989, was open thereafter at the Headquarters of the United Nations in New York until 22 March 1990.

Kyrgyzstan accessed to the Basel Convention on 18 January 1996.

By decision III/1 as of 22 September 1995, the Contracting Parties to the above Convention adopted an Amendment to the Convention (so-called Ban Amendment) at the Third meeting of the Conference which took place in Geneva from 18 to 22 September 1995. However, none of the 6 countries ratified that amendment

### International Agreements



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## Section II: Regulatory framework on waste management

### Chapter I Political and Legal Framework

#### General overview

- State program of waste production and consumption, approved by the Government of the Kyrgyz Republic on August 19, 2005 No.389 (Dates of the Program: 2005-2011 years);
- State program on eliminating the use of ozone-depleting substances for the period from 2008 to 2010 (phase 2), approved by the Government on July 11, 2008 No.374;
- National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants, approved by the Government Order dated July 3, 2006 No.371-p (as amended by Decree of the Government of the Kyrgyz Republic on October 2, 2007 No.372-p);
- Ecological Security Concept of the Kyrgyz Republic approved by Presidential Decree of the Kyrgyz Republic, November 23, 2007 No.506;
- National Sustainable Development Strategy of the Kyrgyz Republic for the period 2013-2017 years, approved by Presidential Decree as of January 21, 2013 No.11;
- Sustainable development transition program for the years 2013-2017, approved by the Decree of the Kyrgyz Parliament from December 18, 2013 No.3694-V.

**National legislation and regulatory measures adopted by the Government in order to implement and enforce the provisions of the Basel Convention and other international conventions:**

#### National Laws and regulations that govern hazardous waste (especially OP) management<sup>1</sup>

- Law "On Production and Consumption Waste" from January 13, 2001.  
This Law determines the state policy in the field of waste production and consumption. It is designed to help preventing the negative impact of waste production and consumption on the environment and human health when handling them, as well as their maximum involvement in economic turnover as an additional source of raw materials;
- Law "On the rate of payment for environmental pollution (emissions, discharges of pollutants, waste disposal) from March 10, 2002 No.32.  
This Law sets the rate of payment for environmental pollution (emissions, discharges of pollutants, waste disposal)
- Law "On Environmental Protection" as of June 16, 1999 No.53 determines the policy and governs the legal relations in the field of nature conservation and environmental protection in the Kyrgyz Republic. It also regulates the issues related to waste management
- Law "On general technical regulation in relation to environmental safety in the Kyrgyz Republic", 8 May 2009, No.151

The Law is used for the protection of the environment. It defines the basic provisions of the technical regulation on environmental safety and establishes general requirements for environmental safety in the design and implementation of objects on economic and other activities for the processes of production, storage, transportation and disposal of products.

The requirements of this standard instrument operating in the territory of the Kyrgyz Republic in respect of the processes of production, storage, transportation and disposal of products are mandatory for all legal entities and natural persons carrying out the processes of production, storage, transportation and disposal of product. The law defines the basis for the environmental safety, environmental safety requirements for economic and other activities, the basics for conformity assessment processes of economic and other activities with the requirements of environmental safety;

- Regulation "On the state cadastre of waste and certification of hazardous waste", approved by the Government of the Kyrgyz Republic on August 19, 2005 No.389;
- Classifier of hazardous waste, approved by the Governmental Decree as of January 15, 2010 No.9;

<sup>1</sup> All regulations are available at the website of the Ministry of Justice of the Kyrgyz Republic ([www.minjust.kg](http://www.minjust.kg))

- Guidelines on determining the waste hazard class, approved by the Governmental Decree as of January 15, 2010 No.9.
- Decision of the National statistical committee of the Kyrgyz Republic on approval of the state statistical reporting on waste production and consumption, dated April 22, 2009 No.19.
- Instruction No.361 on Safe Handling, Storage and Warehousing of Pesticides in agriculture, approved by the Government of the Kyrgyz Republic, dated 5 July 2011.
- Regulation "On testing and state registration of pesticides and agricultural toxic chemicals", approved by the Government of the Kyrgyz Republic, dated July 1, 2013, No.390.
- Order of the Government of the Kyrgyz Republic as of January 16, 2006 No.13-p (On the implementation of obligations of the Kyrgyz Republic of the international environmental conventions);
- Government Decree "On measures for the protection of the environment and human health from the adverse effects of certain hazardous chemicals and pesticides" as of July 27, 2001 No.376;
- The list of chemicals and pesticides banned or severely restricted, approved by the Decree of the Government of the Kyrgyz Republic as of July 27, 2001 No.376;
- State distribution of pesticides and agricultural chemicals permitted for use in the Kyrgyz Republic for the years 2011-2019, approved by the Decree of the Government of the Kyrgyz Republic, dated November 4, 2011 No.704;
- Instructions on how to purchase, sell, store, perform the inventory and transportation of highly toxic substances, approved by the Government of the Kyrgyz Republic, dated 21 September 1999 No.513;
- Regulation "On licensing certain types of activities", approved by the Government of the Kyrgyz Republic, dated May 31, 2001 No.26;
- others.

#### **Policies or strategies at the national level**

- State program on waste production and consumption, approved by the Government of the Kyrgyz Republic on August 19, 2005 No.389 (Dates of the Program: 2005-2011 years);
- State program on eliminating the use of ozone-depleting substances for the period from 2008 to 2010 (phase 2), approved by the Government on July 11, 2008 No.374;
- National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants, approved Government Order dated July 3, 2006 No.371-p (as amended by Decree of the Government of the Kyrgyz Republic on October 2, 2007 No.372-p);
- Ecological Security Concept of the Kyrgyz Republic approved by Presidential Decree of the Kyrgyz Republic, November 23, 2007 No.506
- National Sustainable Development Strategy of the Kyrgyz Republic for the period 2013-2017 years, approved by Presidential Decree dated January 21, 2013 No.11
- Sustainable development transition program for the years 2013-2017, approved by the Decree of the Kyrgyz Parliament as of December 18, 2013 No.3694-V.

In order to implement and enforce the provisions of the Basel Convention, the Kyrgyz Republic adopted a number of measures, including the adoption of the following acts:

- The Law of the Kyrgyz Republic "On Production and Consumption Waste" as of November 13, 2001 No.89
- Resolution of the Government of the Kyrgyz Republic "On the implementation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and of the Agreement on the Control Transboundary Movements of Hazardous and other wastes" from May 14, 1997 No.276 (in accordance with which the Ministry of Environment of the Kyrgyz Republic (which later became the legal successor SAEPF) was responsible for the implementation of these international documents)
- Resolution of the Government of the Kyrgyz Republic "On measures for implementation of the Law" On Production and Consumption" as of April 29, 2002 No.261, according to which some public authorities were tasked to develop and approve a number of documents relating to the production and consumption waste.
- Additions to the Administrative Code as of August 4, 1998 No.114. In particular, the following were considered offense:
  - failure to comply with measures aimed at reducing the use of chemicals, harmful effects on the environment and the ozone layer of the atmosphere, according to the lists of the Montreal Protocol on

	<p>Substances that Deplete the Ozone Layer, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam Convention on the prior Informed Consent Procedure for Certain hazardous Chemicals and pesticides in International Trade (Article 181-1),</p> <ul style="list-style-type: none"> <li>- the use of land contaminated with chemicals, pesticides, industrial waste and wastewater for agricultural production (Art. 196),</li> <li>- improper storage, transportation and use of agrochemicals and pesticides (Art. 207).</li> </ul> <ul style="list-style-type: none"> <li>• State regulation on Transboundary movements of hazardous wastes and other wastes, approved by the Government of the Kyrgyz Republic dated April 6, 1999 No.193 "On Measures for the Control of Transboundary Movements of Hazardous Wastes and other Wastes" (it subsequently lost its validity in accordance with the Government decision of the Kyrgyz Republic as of May 31, 2001 No.260 "On licensing certain types of activities").</li> <li>• Draft of the National Plan on the chemicals proper management in the Kyrgyz Republic (2013-2017) was developed based on the recommendations presented in the Guidelines for the development of plans to implement SAICM. It is available on the web-site of the State Agency on Environment Protection and Forestry under the Government<sup>2</sup></li> </ul>		
<b>Chapter II Specific Laws and Regulations that govern waste management</b>	<b>Sector</b>	<b>EU legislation</b>	<b>Kyrgyz legislation</b>
	<i>General waste management</i>	Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance), <i>OJ L 312, 22.11.2008, p. 3–30</i>	
	<i>Import/Export</i>	Regulation (EC) No. 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals, <i>OJ L 204, 31.7.2008, p. 1–35</i> . Regulation (EU) No. 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals Text with EEA relevance, <i>OJ L 201, 27.7.2012, p. 60–106</i>	
	<i>Landfill of waste</i>	Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, <i>OJ L 182, 16.7.1999, p. 1–19</i>	
	<i>Incineration</i>	Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste, <i>OJ L 332, 28.12.2000, p. 91–111</i>	
	<i>Shipment of waste</i>	Regulation (EC) No. 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste,	

<sup>2</sup> [http://www.nature.kg/index.php?option=com\\_content&task=view&id=634&Itemid=69&lang=ru](http://www.nature.kg/index.php?option=com_content&task=view&id=634&Itemid=69&lang=ru)

		<i>OJ L 190, 12.7.2006, p. 1–98</i>	
<b>Chapter III Institution(s) involved in waste management (focus on pesticides)</b>	<p>There are several governmental institutions in the Kyrgyz Republic involved in management of pesticides waste: The Law "On the application of chemicals and plant protection" defines that the Government is responsible in the field of plant protection and use of pesticides, either directly or through specially authorized bodies of executive power.</p> <p>Ministries of the Government that deal with pesticides:</p> <ul style="list-style-type: none"> <li>• Ministry of Agriculture and Melioration</li> <li>• Ministry of Emergency Situations</li> <li>• Ministry of Health</li> <li>• Ministry of Economy</li> <li>• Ministry of Transport and Communications</li> <li>• Ministry of Finance</li> </ul> <p>Divisions of the Ministries:</p> <ul style="list-style-type: none"> <li>• Department of chemicalization and plant protection of the Ministry of Agriculture and Melioration</li> <li>• Department of Disease Prevention and State Sanitary and Epidemiological Surveillance of the Ministry of Health</li> <li>• Agency on Hydrometeorology of the Ministry on Emergency Situations</li> <li>• Accreditation Centre at the Ministry of Economy</li> </ul> <p>Governmental agencies:</p> <ul style="list-style-type: none"> <li>• State Agency on Environment Protection and Forestry under the Government</li> <li>• State Agency on Geology and Mineral under the Government</li> </ul> <p>State Inspections:</p> <ul style="list-style-type: none"> <li>• State inspection on veterinary and phytosanitary security of the Government</li> <li>• State inspection on environmental and technical safety of the Government</li> </ul> <p>Other bodies:</p> <ul style="list-style-type: none"> <li>• The Coordination Commission on promotion of the safe management of chemicals, including PCB containing</li> <li>• The State Customs Service under the Government</li> <li>• The National Statistical Committee</li> </ul> <p><b>Local Level</b></p> <p>With regard to local authorities, Art. 10 of the Law "On Local Self-Government" as of July 15, 2011 No.101 provides that their powers include control over the activities of enterprises, organizations and institutions, and other legal entities for the implementation of legislation on environmental protection, the use of land and natural resources, compliance with the rules and regulations of urban planning and architecture health standards, environmental actions in the manner prescribed by law. Also they have responsibilities in the development and implementation of measures to protect the environment, protection of consumer rights. For these powers they are accountable to authorities at the state level.</p> <p>According to Art. 4 of the Law "On Production and Consumption Waste" as of January 13, 2001, the powers of local authorities in the field of waste management include:</p> <ul style="list-style-type: none"> <li>• implementation of measures to prevent accidents, accidents related to waste management;</li> <li>• implementation of measures in order to eliminate the consequences of disasters, accidents related to waste management;</li> <li>• development and implementation of regional, as well as the implementation of government programs, in the field of waste management;</li> <li>• control of enterprises and organizations, within their territory, in the area of waste management;</li> <li>• fundraising, organization of businesses and individuals, local budget and extra-budgetary funds to finance new construction, expansion and renovation of existing facilities for handling, processing and disposal of waste;</li> <li>• rational organization of the collection system, which provides a separate collection of components (food waste, ferrous and non-ferrous metals, textiles, glass, paper, etc.), storage, regular removal, decontamination, waste management and remediation territory under their jurisdiction;</li> </ul>		



- |  |                                                                                                                                                                           |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"><li>• providing the population with information on waste management, the status of their storage and processing in the region</li></ul> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



<b>Section III: Analysis of existing national waste management legislation</b>	
<b>Theme 1 Scope</b>	<p><i>What is covered by the national law in relation to waste management, regarding pesticides waste?</i></p> <p><i>or</i></p> <p><i>What is covered by the national law in relation to chemical management, regarding pesticides waste?</i></p>
<b>Theme 2 Definitions</b>	<p>According to Art. 2 of the Law "On Production and Consumption Waste" as of January 13, 2001, hazardous waste is the waste (except radioactive waste), containing in its composition substances which have one of the hazardous properties (such as toxicity, infectivity, explosiveness, flammability, high reactivity ability) and are present in such an amount that present an immediate or potential danger to human health or the environment, both independently and when in contact with other substances.</p> <p>All hazardous waste, according to their harmful effects on humans and the environment are divided into classes (page2 of the Art.10 of the Law "On Production and Consumption Waste" as of January 13, 2001).</p> <p>There is <u>no definition</u> of "pesticides waste" in the legislation of the Kyrgyz Republic. Article 1 of the Law of the Kyrgyz Republic "On the application of chemicals and plant protection" defines <u>pesticides</u> as chemical or biological substances used to control pests or plant diseases, weeds, pests of stored agricultural products, household pests and external parasites of animals, as well as for regulating the growth of plants, pre-harvest removal of leaves (defoliant), pre-harvest drying plants (desiccants)". Also Article 1 defines the term of "pesticide active ingredient". This is the biologically active portion of a pesticide used in a variety of formulations which leads to exposure to a particular type of pest or plant growth.</p> <p>The same definition is enclosed in the Regulation "On testing and state registration of pesticides and agricultural toxic chemicals", approved by the Government of the Kyrgyz Republic, dated July, 1, 2013, No.390.</p> <p>All pesticides are classified in Kyrgyzstan as banned, severely restricted and permitted</p>
<b>Theme 3 Administrative and institutional structure</b>	<p>The country has a classification of hazardous waste. It is described in the following documents:</p> <ul style="list-style-type: none"> <li>• Law on "General technical regulation on environmental security in the Kyrgyz Republic", May 8, 2009 No.151;</li> <li>• Classifier of the hazardous waste approved by the Governmental Decree as of January 15, 2010 No.9;</li> <li>• Guidelines to determine the waste's hazard class, approved by the Governmental Decree as of January 15, 2010 No.9.</li> </ul> <p>The Classifier is designed for use in waste management, including: accounting, control, regulation on handling waste permits for Transboundary Movement and accommodation waste, design of environmental facilities and environment protective measures, assessment of the social, economic, resource and material risk and damage in the event of accidents and disasters.</p> <p>Pesticides waste included in such classification are:</p> <ul style="list-style-type: none"> <li>• Contaminated packaging pesticides;</li> <li>• Pesticides, the individual components;</li> <li>• Agrochemical residues (fertilizers, pesticides, herbicides)</li> </ul>
<b>Theme 4 Licensing</b>	<p>According to Articles 15-16 of the Law "On licensing system in the Kyrgyz Republic" from October 19, 2013 No.195, subjects to licensing are disposal, storage, disposal of waste materials and toxic substances, including radioactive waste; transportation (including transboundary) of toxic waste, including waste products of radioactive substances</p>
<b>Theme 5 Transboundary movement, import/export</b>	<p>Art.12 of the Law "On Production and Consumption" prohibits the import of wastes on the territory of the Kyrgyz Republic for the purpose of siting.</p> <p>The control of the export (import) of hazardous wastes and other wastes is provided by state bodies of executive power, which are in charge of customs, environmental and sanitary-epidemiological control.</p> <p>Also Article 15-16 of the Law "On licensing system in the Kyrgyz Republic" dated October 19, 2013 No.195 provides for the following activities are subject to licensing:</p>

	<ul style="list-style-type: none"> <li>• transportation (including cross-border) of toxic waste, including waste production of radioactive substances</li> <li>• disposal, storage of waste materials and toxic substances, including the radioactive ones.</li> </ul> <p>However, the country lacks specialized licensed entities that can properly organize the transportation of hazardous waste in special packaging facilities, produce decontamination vehicles.<sup>3</sup></p> <p>According to the Law on Ratification of the Basel Convention, the responsible authority is the State Agency on Environment Protection and Forestry under the Government of the Kyrgyz Republic.</p> <p>Transboundary movement is regulated by the following documents:</p> <ul style="list-style-type: none"> <li>• The list of specific goods whose export is subject to licensing, approved by the Resolution of the Legislative Assembly of the Kyrgyz Republic, June 8, 1998 No.1101;</li> <li>• The list of specific goods, the import of which is licensed, approved by the Legislative Assembly of the Kyrgyz Republic on June 8, 1998 No.1101;</li> <li>• The list of organizations and experts licensors to license the import of specific goods, as approved by the Government of the Kyrgyz Republic, October 29, 1998 No.709);</li> <li>• The list of organizations and experts licensors to license the export of specific goods, as approved by the Governmental Decree as of 29 October 1998, No.709);</li> </ul> <p>All these documents establish state bodies, which are authorized to issue licenses for the export and import of waste. The procedure for obtaining a license is established by the Law "On licensing system in the Kyrgyz Republic" dated October 19, 2013 No.195.</p> <p>There is no national statistics on Persistent Organic Pollutants (POPs) and transboundary movement of hazardous waste in the country. Data could be available from relevant government bodies and international projects. So, on the transboundary movements of hazardous waste, there is only information from National Reports under the Basel Convention, according to which in 2010, exports amounted to 3.5 million tons and 400 tons of imports. At the same time, there is illegal cross-border trade in hazardous wastes (obsolete pesticides, PCB transformers, contaminated scrap metal, electronic waste and other)<sup>3</sup>.</p> <p>There is no special legal act regulating transboundary shipment of hazardous (pesticides) waste.</p> <p>According to the decision of the Parliament of the Kyrgyz Republic as of June 8, 1998 No.1101 W-I, there was approved the list of goods for exports and imports subject to licensing. Hazardous waste under the Basel Convention list was included in this list. Authorized body is the State Agency on Environment Protection and Forestry under the Government.</p> <p>According to Art. 12 of the Law "On Production and Consumption Waste", the import of waste into the territory of the Kyrgyz Republic, intended for any operation of the storage and disposal is prohibited. Government of the Kyrgyz Republic establishes the procedure for state regulation of transboundary movements of hazardous and other wastes.</p> <p>The control of the export (import) of hazardous wastes and other waste is provided by the state bodies of executive power, in charge of customs, environmental and sanitary-epidemiological control</p>
<b>Theme 6 Economic Initiatives</b>	<p>Economic principle "polluter pays" is the fundamental basis of environmental policy in Kyrgyzstan.</p> <p>In accordance with Article 15 of the Law "On Environmental Protection" as of June 16, 1999 No.53, the special use of natural resources is carried out on a fee basis. Payments for the nature consist of fees for the use of natural resources, payments for environmental pollution and other negative impacts on the environment. Fee for the use of natural resources is established for use of natural resources within the specified limits, for excessive use of natural resources and paid to the state budget in accordance with established procedures and activities used in the protection and enhancement of the environment.</p> <p>Fees are charged for the pollution – emissions, discharges of pollutants, waste disposal and other types of pollution and negative impact on nature.</p> <p>The fee for emissions, discharges of hazardous substances and waste disposal are transferred by the legal entities and individuals without recourse to special accounts of state funds for nature protection.</p>

<sup>3</sup> The draft of the National Plan on the proper chemicals management in the Kyrgyz Republic (2013-2017)

	<p>Paying for nature does not relieve a nature of implementation of measures for environmental damages.</p> <p>The Article 1-2 of the Law "On the rate of payment for environmental pollution (emissions, discharges of pollutants, waste disposal)" as of March 10, 2002 No.32 determines the rate of payment for environmental pollution (emissions, discharges of pollutants, waste disposal). Rate of payment for environmental pollution (emissions, discharges of pollutants, waste disposal) is applied in the calculation of payments for environmental pollution.</p> <p>Such tools as taxes, penalties, payments system of returnable deposits, mortgage costs, subsidies, fiscal instruments (tax and environmental inspectors), payments to cover costs (water and waste sector) are developed and partially used</p>
<b>Theme 7 Transport</b>	<p>The Law "On Production and Consumption" in Art.11 establishes requirements for the transportation of hazardous waste. According to the Law, transportation of hazardous wastes shall be permitted only by specially equipped vehicles.</p> <p>Procedure for transporting the waste via specific means of transportation (road, rail, water, etc.), the requirements for loading and unloading, as well as other necessary requirements for environmental safety are determined by the relevant regulations. In particular, these included the stacking order, transportation, disposal and dumping of toxic industrial waste (approved by Decree of the Kyrgyz Republic Ministry of Ecology and Emergency Situations as of January 5, 2005 No.c6). This document also establishes sanitary requirements for waste transport.</p> <p>Since the waste is loaded on the vehicle and the acceptance of their organization or individual engaged in the transport of waste, and to discharge them into place on the vehicle legally responsible for the safe handling shall transport organization that owns the vehicle.</p> <p>There are currently no licensed specialized organizations that can properly organize transportation of hazardous waste in special packaging facilities, produce decontamination vehicles<sup>4</sup></p>
<b>Theme 8 Labelling requirements</b>	<p>According to data presented in the Draft of the National plan on proper chemicals management, there were repackaged 500 tones of obsolete pesticides in the country plan.</p> <p>Nowadays, the information on the hazardous properties of chemicals is limited. Information on labelling of the chemicals, on imported/exported/repackaged, used chemicals, etc., is incomplete. The information system of Kyrgyz Republic contains no information about the severity of the chemical; there is no pointers "dangerous" or "attention" icon United Nations response in case of emergencies, accidents, harmful fumes, etc., in accordance with the requirements of the International System of classification and labelling</p>
<b>Theme 9 Packaging and containers</b>	<p>Article 17 of the Law "On the application of chemicals and plant protection" prohibits the sale (resale) of the empty pesticide containers.</p> <p>According to p.10.6 of the Instruction for safe use, storage and warehousing of pesticides in agriculture, approved by the Government of the Kyrgyz Republic, dated July 5, 2011 No.361, the paper or wooden containers should be burned at specially designated areas agreed with the health and the environment authorities. Metallic containers should be returned to the stock. However farmers who used pesticides do not return used metallic containers and use them for domestic purposes. So the state doesn't keep the monopoly on collecting used containers</p>
<b>Theme 10 Emergency procedures</b>	<p>The accident with the emission (the threat of emission) hazardous chemical substances refers to man-made emergencies.</p> <p>According to Article 18 of the Law on Civil Protection of July 20, 2009 No.239, the heads of relevant organizations, local authorities, local state administrations on whose territory the emergency occurred (depending on their severity) manages of elimination of accident.</p> <p>In the case of elimination of accident which are national and transboundary the Head of the authorized body (Ministry of Emergency Situations) manages of elimination of accident</p>

<sup>4</sup> The draft of the National Plan on the proper chemicals management in the Kyrgyz Republic (2013-2017)

<b>Theme 11 Disposal obligations</b>	<p>There is no special Law in the Kyrgyz Republic, which defines disposal of hazardous waste.</p> <p>It is expected that the draft of the Law of the Kyrgyz Republic "Technical regulation" About safety of production processes, acquisition, sale, use, storage, transportation and disposal of highly toxic substances" will be created</p>
<b>Theme 12 Incineration</b>	<p>According to Art. 8 of the Law "On Production and Consumption Waste" as of January 13, 2001, the burning of waste, which can be sources of environmental pollution on the territory of organizations and communities is prohibited. They are subject to destruction, processing, refining, storage, or disposal in special landfills or in other designated areas of waste disposal or incineration in special facilities.</p> <p>Art. 14 of the Law "On general technical regulation in relation to environmental safety in the Kyrgyz Republic", dated 8 May 2009, No.151, prohibits unauthorized waste incineration. It does not contain specific requirements for the incineration procedure. According to p.7.13 of the Order on accumulation, transportation, disposal and dumping of toxic industrial waste, approved by the Ministry of Environment and Emergencies, as of January 5, 2005 No.c6, Combustible waste should be incinerated. In order to do this, the oven should be constructed on a dedicated section of the landfill, fitted with dust-gas cleaning installation and its operation should provide optimal conditions for incineration at a temperature of 1000-1200 degrees, excluding air pollution. But at the moment this document is not a normative act.</p> <p>Special requirement for incineration are provided by the Instruction for safe use, storage and warehousing of pesticides in agriculture, approved by the Government of the Kyrgyz Republic, dated July 5, 2011 No.361. According to p.10.6 paper or wooden containers should be burned at specially designated areas agreed with the health and the environment authorities.</p> <p>Selecting a location for the construction of waste disposal is determined by local authorities (where necessary, taking into account public opinion) in accordance with the requirements of the competent authority on the basis of environmental, geological, hydrological and other studies at the positive conclusion of the state ecological expertise.</p> <p>However, in practice these requirements are not always respected and the unauthorized waste incineration takes place.</p> <p>The Law on "Regulation on the State inspection on environmental and technical safety of the Government of the Kyrgyz Republic establishes only the documentation requirements, in particular the resolution of waste disposal to waste of the first and second categories of danger</p> <p>In accordance with p.7.13 of the Order on accumulation, transportation, disposal and dumping of toxic industrial waste, approved by the Ministry of Environment and Emergencies as of January 5, 2005 No. 67.1, the disposal method is selected depending on the state of aggregation, water solubility, hazard class. But at the moment this document is not a normative act</p>
<b>Theme 13 Recording, monitoring, and reporting</b>	<p><b>Monitoring</b></p> <p>Several state agencies are involved in environmental monitoring in the country. The main ones are:</p> <ul style="list-style-type: none"> <li>• <i>State Agency on Environment Protection and Forestry under the Government</i> is responsible for monitoring the environment pollution;</li> <li>• <i>Department of chemicalization and plant protection of the Ministry of Agriculture and Melioration</i> carries out monitoring and forecasting phytosanitary and agrochemical environment, the spread of pests of agricultural crop contamination of plant products, soil and irrigation water pesticides and agrochemicals on farmland of Kyrgyz Republic; specially authorized body in the field of chemicals and plant protection chemicals;</li> <li>• <i>Department of Disease Prevention and State Sanitary and Epidemiological Surveillance of the Ministry of Health</i> organizes, conducts monitoring and supervision of facilities, regardless of ownership and departmental affiliation, compliance with the requirements of technical regulations and other regulations in the field of public health, identification, prediction of potential influence of biological, chemical, radiation and other physical factors on health; analyzes the state of the environment in terms of health safety.</li> <li>• <i>State inspection on environmental and technical safety under the Government</i> is the authorized state executive authority exercising state surveillance and control on the environmental and technical safety.</li> <li>• <i>Agency on Hydrometeorology of the Ministry of Emergency Situations</i> carries out activities in the field of</li> </ul>

	hydrometeorology and observations of the level of environmental pollution
<b>Theme 14 Offences and penalties</b>	<p>Art. 21 of the Law "On Production and Consumption" provides that non-reporting, the late reporting or providing false information on waste management in public authorities is an offence.</p> <p>Kyrgyz legislation provides for the liability for violations in the area of environmental protection. In particular, the following Articles of the Administrative Code are relevant:</p> <ul style="list-style-type: none"> <li>• Article 161 Failure to submit, concealment or misrepresentation of information on the state of the environment and natural resources.</li> <li>• Article 407 Violation of the order of state statistical reports.</li> </ul> <p>Penalty is the consequence for such offences</p>
<b>Theme 15 Official controls and inspection</b>	<p>The State inspection on environmental and technical safety under the Government is the authorized state executive authority exercising state surveillance and control on the environmental and technical safety.</p> <p>According to the Regulation "On the State inspection on environmental and technical safety under the Government of the Kyrgyz Republic", it may carry out such inspections, regardless of ownership in accordance with the legislation of the Kyrgyz Republic. In general, the frequency of inspection is determined on the basis of the degree of risk to the environment of a particular company.</p> <p>In emergency cases related to ensuring the life and health of people, (the threat or occurrence of an accident of environmental and manmade), it immediately conducts inspections without the written directions, regardless of time of day, in order to identify the causes and sources of unacceptable impacts on human health and the surrounding environment, as well as undertakes measures to address them.</p> <p>The inspections must be registered in the registration book of inspections.</p> <p>According to Art. 15 of the Law "On the Procedure for inspections of businesses" as of May 25, 2007 No.72, the act of inspection should be drawn in two copies. The act specifies:</p> <ul style="list-style-type: none"> <li>- Date, time and place of the act;</li> <li>- The name of the inspector;</li> <li>- The date and order number (order, regulation), on the basis of the inspected;</li> <li>- First name middle name, phone service certificate and title of person (s) who conducted the inspections;</li> <li>- Name and address of the inspected entity or business name, patronymic of the individual;</li> <li>- Date, time and place of the inspection;</li> <li>- Information on the results of the inspections, including identified violations;</li> <li>- Information about acquaintance or refusal to read the results of an inspection of a business entity or an individual, their signatures;</li> <li>- Signature of the investigating officer conducting the test.</li> </ul> <p>To act the included samples of surveys, studies, and reports of examinations</p>
<b>Theme 16 Research and development</b>	<p>There is no private investment in the pesticides waste research within the country There is no special cooperation program, but some activities take place. Department of chemicals and plant protection carries out the organization of research of biological, toxicological and ecological use of pesticides and agricultural chemicals safety for human health and the environment.</p> <p>There are no special research institutions particularly focused on pesticides issues. But some research institutions are engaged in studying the pesticides concerning soil, water, food, health.</p> <p>For example, among the priority scientific directions of <i>National Academy of Sciences (NAS)</i><sup>5</sup> approved by the resolution of Presidium of NAS No. 37 of May 27, 2009 is called increase of ecological, biological and food safety (p.6.3).</p> <p><i>The Institute of chemistry, chemical technology, biology and soil science, the Institute of mining of NAS, Department of physiology and medical problems of NAS</i> develop new highly effective growth factors and means</p>

<sup>5</sup> 720071, Kyrgyz Republic, Bishkek, Chui ave., 267. Phone +996(312) 39-19-48, fax +996(312) 39-19-86, e-mail: icctkr@inbox.ru, <http://www.nas.aknet.kg/index.php?menu=0>

of protection of plants, biologically active connections, organic and organomineralny fertilizers. It also conducted research of level of concentration of POPs in a human body and environment (glaciers, lakes, the cross-border rivers) and have developed recommendations about biological degradation of POPs- pesticides in the soil.

*The Institute of medical problems of the Southern office of NAS<sup>6</sup>* develops remedies from local raw material resources for neutralization and removal from a human body the pesticides, radio-nuclides, salts of heavy metals and toxic substances of tobacco.

*Scientific and Production Association "Preventive Medicine"<sup>7</sup>* of the Ministry of Health within the framework of its main activities implements fundamental and applied research on priority issues of hygiene, epidemiology, treatment and prevention of infectious and non-infectious diseases.

Organic farming projects involve the development of production and trade promotion organic cotton (PBH), Helvetas Swiss Association for International Cooperation, ICCO Hivos, the Netherlands and SECO Swiss State Secretariat for Economic Affairs

<sup>6</sup> 714018, Kyrgyz Republic, Osh, Uzgenskaya st, 130A, Phone: +996 (3222) 2-13-95, fax: +996 (3222) 2-92-44, e-mail: [impnankr@rambler.ru](mailto:impnankr@rambler.ru)

<sup>7</sup> Kyrgyz Republic, Bishkek, Baytik Batyra st., 34. Phone +996(312) 54-45-73





## Section IV: Information supplementing legal analyses – from other Experts

### Topic 1 – Pesticides Manufacturing Industry

*Are there pesticides manufacturers in the country?*

Pesticides have never been produced in the country.

*What measures are taken by agrochemicals industries in accordance with the national legislation in regard to hazardous waste, including pesticides waste?*

According to Art. 10 of the Law "On Production and Consumption", legal entities and individuals whose activities are related to the hazardous wastes generation are required, when handling them, to ensure protection of the environment and the public from their harmful effects. They are also required to keep records of hazardous waste generated.

*Whether individual companies have adopted internal policies to reduce the generation of pesticides waste, and developed programs to enforce these policies?*

In order to reduce the generation of pesticides waste the individual industrial firms can use biological.

*Does the legislation requests to the to be-taken by industries/waste generators any measures in order to reduce or eliminate pesticides waste generation?*

Depending on the category of hazardous waste, the waste reduction plan should be developed (every 5 years for I and II waste category). It is prescribed by the Law on "The Regulation "On the State inspection on environmental and technical safety of the Government of the Kyrgyz Republic"

### Topic 2 – Management of Obsolete Pesticides Stocks

*Whether there have been carried inventory/storage/disposal activities regarding obsolete stocks?*

*Who carried them out, and what are the results? Provide the list of activities in chronological order*

2006 – inventory in Osh region (The Dutch Government in partnership with the Dutch NGO «Milieukontakt International» and the State Agency on Environment Protection and Forestry under the Government of the Kyrgyz Republic).

2009 – inventory in Jalal-Abad region (Canada/The World Bank and the State Agency on Environment Protection and Forestry under the Government of the Kyrgyz Republic).

2012 – the National inventory of other regions (FAO/Turkey and Department of chemicals and plant protection of the Ministry of Agriculture and Land Reclamation of the Kyrgyz Republic)

### Topic 3 – Methods used for treatment of pesticides wastes

*What are the methods used for the treatment of pesticides wastes?*

According to the Art.19 of the Law "On the application of chemicals and plant protection" dated January, 25, 1999, No.12, disposal and burial of obsolete and (or) banned pesticides, as well as their containers provided by individuals and legal entities shall be in accordance with the regulations of the Kyrgyz Republic.

Methods of disposal are developed by manufacturers of pesticides and agrochemicals in consultation with a specially authorized body on the chemicals and plant protection, specially authorized executive body in the field of environment and specially authorized executive body in the field of State Sanitary and Epidemiological Surveillance.

The Law "On the application of chemicals and plant protection" in Article 17 prohibits the sale (resale) of the empty pesticide containers.

According to p.10.6 of the Instruction for safe use, storage and warehousing of pesticides in agriculture, approved by the Government of the Kyrgyz Republic, dated July 5, 2011 No.361, paper or wooden containers should be burned at specially designated areas agreed with the health and the environment authorities. Metallic containers should be returned to the stock. But farmers who used pesticides do not return used metallic containers and use them for domestic purposes.

The general rule for waste is provided by Art. 8 of the Law "On Production and Consumption" dated November 13, 2001, №89. It establishes that waste is the source of pollution and it shall be destroyed, while its processing, refining, storage, or disposal shall be in special landfills or in other designated areas of waste disposal or incinerated in special facilities





## Section V: Disposal, Storage, Recycling and Recovery Facilities – practical information from other Experts

### Topic 1 – Disposal facilities

*Are there any disposal facilities in the country?*

Yes, there are disposal facilities in the country

The legislation of the Kyrgyz Republic contains some provision regarding disposal:

- Law "On Production and Consumption" dated November 13, 2001, No. 89

According to the Art.2, waste disposal – waste isolation aimed at preventing contaminants into the environment and to preclude further use of such waste.

Article 8 establishes requirements for waste disposal. In particular, it prohibits the unauthorized disposal of waste, which can be sources of environmental pollution, and burning them in the territory of enterprises, institutions, organizations and communities. Wastes that are sources of pollution shall be destroyed, while its processing, refining, storage, or disposal shall be in special landfills or in other designated areas of waste disposal or incinerated in special installations.

The location for the construction of waste disposal is determined by local authorities (where necessary, taking into account public opinion) in accordance with the requirements of the competent authority on the basis of environmental, geological, hydrological and other studies at the positive conclusion of the state ecological examination and in accordance with the legislation of the Kyrgyz Republic.

Landfill included in the state cadastre of waste. Conducting monitoring of the landfill disposal sites is a must. Monitoring is carried out by the owner of the object disposal in the manner agreed with the competent authority.

- Law "On general technical regulation in relation to environmental safety in the Kyrgyz Republic", 8 May 2009, No.151

Article 14 sets that disposal facilities should be provided with the demands of their isolated and resource content with the aim of possible subsequent processing operations, loading, transportation, unloading, disposal and destruction.

This Law also prohibits the following: disposal of waste production and consumption on the territories of settlements, forest park, spa, therapeutic, recreational and water protection zones in the catchment area of the groundwater bodies, which are used for domestic, drinking and household water use; the unauthorized disposal of waste in the environment; unauthorized waste incineration; the unauthorized extraction of buried waste.

- Law "On Environmental Protection" as of June 16, 1999, No.53

According to Article 23, legal entities and individual persons are obliged to take effective measures for the disposal of waste in order to comply with environmental, sanitary and anti-epidemic regulations. Storage and disposal of waste produced in the places determined by the local government in coordination with state environmental and health care authorities of the Kyrgyz Republic. Storage and disposal of waste produced shall be in the manner prescribed by law. Burial or other potentially hazardous occupancy, particularly toxic and radioactive waste is produced under license.

- The Law "On the application of chemicals and plant protection" dated January, 25, 1999, No.12

According to Art.19, disposal and burial of obsolete and (or) banned pesticides, as well as their containers provided by individuals and legal entities shall be in accordance with the regulations of the Kyrgyz Republic.

Methods of disposal are developed by manufacturers of pesticides and agrochemicals in consultation with a specially authorized body on the chemicals and plant protection, specially authorized executive body in the field of environment and specially authorized executive body in the field of State Sanitary and Epidemiological Surveillance.

Article 17 prohibits the sale (resale) of empty pesticide containers.

According to p.10.6 of the Instruction for safe use, storage and warehousing of pesticides in agriculture, approved by the Government of the Kyrgyz Republic dated July 5, 2011 No.361, paper or wooden containers should be burned at specially designated areas agreed with the health and the environment authorities. Metallic containers should be returned to the stock. But farmers who used pesticides do not return used metallic containers and use them for domestic purposes. So the state doesn't keep the monopoly in collecting used containers.

*Are there created permanent facilities for the disposal of pesticides wastes or there are used ad-hoc methods and facilities in this respect?*

No

### Topic 2 – Storage facilities

*Are there any storages of pesticides waste facilities in the country?*

Yes, See part II under Storage and transport.



Food and Agriculture  
Organization of the  
United Nations



*Whether there are any pesticides waste final storage facilities constructed and operated in accordance with the environment standards?*

No

According to Art. 16 of the Law "On licensing system in the Kyrgyz Republic" dated October 19, 2013 №195, disposal, storage, disposal of waste materials and toxic substances, including radioactive, are subject to licensing.

Chapter 35 of the Regulation on licensing of certain activities approved by the Governmental Decree, as of May 31, 2001 No.260, establishes specific requirements.

In 1973, 1979-1980, places for burial of obsolete and banned pesticides were allocated. The inventories identified 194 tones of obsolete pesticides, 430.5 m3 mixed unknown obsolete pesticides, 538 pcs. empty containers and contaminated materials. In addition, in 3 burials (Suzak I, II and Kurgak) and 1 central burial in Kara-Suu district there are 3505 tons of the obsolete pesticides. Some obsolete pesticides were buried, some are still in stocks. At the present time there is an issue of disposal of obsolete pesticides. For a long time no one controlled the state of pesticide burial sites, there were no special signs warning of the danger, facts of opening tombs. The burial of pesticides was conducted in two regions of Kyrgyzstan – Naryn and Osh.

Existing landfills and storage facilities for residues of banned and obsolete pesticides remained after the collapse of the Soviet Union in many cases do not meet sanitary standards. There is broken packaging and pesticides are mixed into the soil and water.

According to the Art.19 of the Law "On the application of chemicals and plant protection" dated January, 25, 1999, No.12, disposal and burial of obsolete and (or) banned pesticides, as well as their containers provided by individuals and legal entities shall be in accordance with the regulations of the Kyrgyz Republic.

Methods of disposal are developed by manufacturers of pesticides and agrochemicals in consultation with a specially authorized body on the chemicals and plant protection, specially authorized executive body in the field of environment and specially authorized executive body in the field of State Sanitary and Epidemiological Surveillance.

Article 17 of the Law "On the application of chemicals and plant protection" prohibits the sale (resale) of empty pesticide containers.

According to p.10.6 of the Instruction for safe use, storage and warehousing of pesticides in agriculture, approved by the Government of the Kyrgyz Republic dated July 5, 2011 No.361, paper or wooden containers should be burned at specially designated areas agreed with the health and the environment authorities. Metallic containers should be returned to the stock. But farmers who used pesticides do not return used metallic containers and use them for domestic purposes.

- Kyrgyzstan participates in a regional (Kyrgyzstan, Georgia, Azerbaijan and Tajikistan) UNEP/WHO/GEF project "Demonstrating an increase in alternatives to DDT for the control of vector-borne diseases in the South Caucasus and Central Asia» – 2,045,000 US \$ in partnership with the Global Fund, the Ministry of Health, Milieukontakt International, the State Agency for Environmental Protection and Forestry under the Government of the Kyrgyz Republic
- GEF-SGP (implemented through NGOs) – "Fencing object placement of obsolete pesticides in Suzak B".
- Canada/The World Bank (Uzbekistan, Tajikistan and Kyrgyzstan), "Regional Project for the final disposal of obsolete pesticides and rehabilitation of disposal dumps." (The project aims two issues: a) Improper disposal of obsolete pesticides, b) Inadequate control of import, storage and use of pesticides.
- The Dutch Government, in partnership with the Dutch NGO «Milieukontakt International» and the ministries and departments in Kyrgyzstan supported the project "Removal of the high risks of obsolete pesticides" (2007 and 2008). With the support of the military teams trained by the Ministry of Emergency Situations, the project investigated 25 pesticide ex-depots in the Osh region. During this inventory 450 tons of obsolete pesticides, 4 tons of contaminated soil/dust in storage and 160 tons of highly contaminated soil near the pesticide storage, was found. Subsequently, 98 of the 100 tons of pesticides (Zhdanov, Shed, Kara-Suu), with the highest risks have been re-packaged and transported to a central location (Kara-Suu district). It also covered 518.5 tons of contaminated soil (both inside and outside the store), placed in high density sheets and the top was covered with clean soil. Special Remark: (NGO "Ekoi"): according to the State Archives 27 items were objects of storage of pesticides, but the audit revealed that only 16 contained chemicals. In the end it was decided to transport 90 tons, 20% of which were pesticides and pesticides mixed with soil. Pesticides have been re-packaged and transported to the facility in an area of 60 hectares (owned by the private sector), and then the necessary documents were prepared for the transfer to the property of the Ministry of Defence.<sup>8</sup>

<sup>8</sup> The overview of the application of international best practices in the management of chemicals in Kyrgyzstan. Bishkek 2012(in Russian). P. 138-140

- In Kyrgyzstan, the organic farming project involved the development of production and trade promotion organic cotton (PBH), Helvetas Swiss Association for International Cooperation, ICCO Hivos, the Netherlands and SECO Swiss State Secretariat for Economic Affairs

### Topic 3 – Recycling facilities

*Are there any recycling/re-use facilities in the country?*

No

### Topic 4 – Recovery facilities

*Are there any disposal/destruction facilities for pesticides wastes or recovery facilities (especially for liquid and high concentration toxic)? Please offer examples?*

The Art.14 of the Law "On the application of chemicals and plant protection" requires the manufacturer to dispose the pesticides, if the safe use of pesticides becomes impossible under the implementation of recommendations on the use, transport and storage of pesticides.

According to the Art.19 of the Law "On the application of chemicals and plant protection", pesticides and their containers that came to disrepair and (or) banned are subject to disposal, recycling, disposal and burial, by individuals and legal entities in accordance with the regulations of the Kyrgyz Republic.

Methods of disposal of unusable and (or) banned pesticides and their containers are developed in consultation with manufacturers specifically authorized on the chemicals and plant protection, specially authorized executive body in the field of environmental protection and specially authorized executive body in the field of State Sanitary and Epidemiological supervision.

The Instructions for safe handling, storage and warehousing of pesticides in agriculture, approved by the Government of the Kyrgyz Republic, dated July 5, 2011 No.361 provides the Safety rules for the decontamination of the vehicles, equipment, containers, premises and workwear.

In the period of the project "Promotion of the Kyrgyz Republic in the preparation of the National Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)" the burial places of obsolete and banned pesticides, some of which are classified as POPs, were identified.

For example, the following are the existing storage sites in Kyrgyzstan: Suzak (1296 tons of obsolete pesticides), Kochkorka (850 tons of obsolete pesticides), and at-Bashi (22 tons of obsolete pesticides).

By the end of the eighties of last century, there was a decrease of supply of pesticides, followed by prohibition on application of organochlorine pesticides. Due to lack of financial and technical resources, they were not destroyed.

Problem of safe disposal of pesticides was decided by the construction of the so-called burials. So in 1973, 1979-1980 have been allocated space for burial of obsolete and banned pesticides.

At the moment the most dangerous are 2 large burials (one in Naryn region and the other one in Jalalabad region), where in Soviet times 1877 tons of obsolete pesticides (including 1643 tons of POPs) was buried. During the following years, the burials were opened and no one knows where and for what purposes these pesticides are collected.

Existing landfills and storage facilities for residues of banned and obsolete pesticides that remained after the collapse of the Soviet Union, in many cases do not meet sanitary standards. Packaging is broken and pesticides are mixed into the soil and water. At the country's markets today persistent organic pollutants and banned pesticides, which illegally crossed the border are still sold.<sup>9</sup>

*In case if the country does not have such facilities what are the methods or actions used by the national authorities to fulfil this task? Is there any foreign financial assistance?*

Export to EU Countries and destruction in approved and dedicated hazardous waste treatment plants (predominantly hazardous waste incineration plants).

This activity was carried out with the assistance of foreign aid projects. Among them are:

- GEF-SGP (implemented through NGOs) – "Fencing object placement of obsolete pesticides in Suzak" B.
- Kyrgyzstan: GEF/UNEP: Help the Kyrgyz Republic for the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs): National Implementation Plan for the Kyrgyz Republic – 498,000 US \$
- Updating a National Profile of chemicals management, the development of national capacity assessment on the implementation of SAICM and a national seminar on the prioritization SAICM in Kyrgyzstan – UNITAR US \$50,950 (2nd)

<sup>9</sup> The draft of the National Plan on the proper chemicals management in the Kyrgyz Republic (2013-2017)

- Partnership Initiative of Kyrgyzstan, UNDP and UNEP on proper integration of chemicals management in development plans and processes of UNDP / UNEP, US \$ 250,000 (6th)
- Canada/The World Bank (Uzbekistan, Tajikistan and Kyrgyzstan), "Regional Project for the final disposal of obsolete pesticides and rehabilitation of disposal dumps." (The project aims two issues: a) Improper disposal of obsolete pesticides, b) Inadequate control of import, storage and use of pesticides.

The Dutch Government, in partnership with the Dutch NGO «Milieukontakt International» and the ministries and departments in Kyrgyzstan supported the project "Removal of the high risks of obsolete pesticides" (2007 and 2008). With the support of the military teams trained by the Ministry of Emergency Situations, the project investigated 25 pesticide ex-depots in the Osh region. During the inventory 450 tons of obsolete pesticides, 4 tons of contaminated soil/dust in storage and 160 tons of highly contaminated soil near the pesticide storage, was found. Subsequently, 98 of the 100 tons of pesticides (Zhdanov, Shed, Kara -Suu), with the highest risks have been re-packaged and transported to a central location (Kara-Suu district). It also covered 518.5 tons of contaminated soil (both inside and outside the store), placed inside a high density sheets and the top was covered with clean soil. Remark: (NGO "Ekois"): according to the State Archives 27 items were objects of storage of pesticides. Later on the audit revealed that 16 contained chemicals. In the end it was decided to transport 90 tons, 20% of which were pesticides and pesticides mixed with soil. Pesticides have been re-packaged and transported to the facility in an area of 60 hectares (owned by the private sector), and then prepared the necessary documents for the transfer to property of the Ministry of Defence.<sup>10</sup>

*Are the any mutual/bilateral agreements with international organizations or states that offered its assistance in this respect?*

No

<sup>10</sup> The overview of the application of international best practices in the management of chemicals in Kyrgyzstan. Bishkek 2012(in Russian). P. 138-140

**Part II – Technical assessment of the management of obsolete pesticides and POPs waste and soil contamination in the Republic of Kazakhstan**

**Section I: Benchmarking of current POPs management against international best practice**

**1. Institutional arrangements**

Responsibilities in the country

*Inter-ministerial Steering Committee for Obsolete Pesticides established?*

Yes

*If yes, when is it established, and how many times does it meet per year?*

One meeting took place in 2012

National Body Representation	Responsible Ministry	Contact person (name/contact details)	Activity and outcome	No. of reference/ annex if needed
<b>SAICM focal point</b>	State Agency on Environment Protection and Forestry under the Government <a href="http://www.nature.kg">www.nature.kg</a>	Kuban Noruzbaev tel.: +996-312-54-25-60 <a href="mailto:knoruzbaev@yahoo.com">knoruzbaev@yahoo.com</a>	Developed National Plan for the proper management of chemicals in KR	Order from the Ministry of Foreign Affairs, 2011]
<b>GEF Focal Point /Coordinating Unit</b>	State Agency on Environment Protection and Forestry under the Government	director Sabir Sadykdzhanovich Atadzhanov tel.: +996-312-35-27-27	GEF/UNEP “Demonstrating and Scaling Up Sustainable Alternatives to DDT for the control of vector borne diseases in Southern Caucasus and Central Asia (Georgia, Kyrgyzstan, Tajikistan”)	according to the procedure GEF the head of the environmental agency is GEF Focal Point
<b>Stockholm Focal Point/POP Centre</b>	State Agency on Environment Protection and Forestry under the Government	Keneshbek Jumabekov tel.: +996-779- 499500(mob) email: k.-jumabekov@mail.ru	The Kyrgyz Republic ratified the Stockholm Convention on 12 July 2006	Order SAEPPG No. 01-13/329 from 22.12.2011
<b>Basel Focal Point</b>	State Agency on Environment Protection and Forestry under the Government)	Nazira Abdilasova tel.: +996-533-28336 (mob); tel.: +996(312)90-08-14 (w) email: <a href="mailto:Nazira200877@mail.ru">Nazira200877@mail.ru</a>	Kyrgyzstan accessed to the Basel Convention on 18/01/1996.	Order SAEPPG No. 01-13/329 from 22.12.2011

<b>Rotterdam Focal Point</b>	State Agency on Environment Protection and Forestry under the Government	Jamal Kadoeva tel.: +996-555-495727 (mob); +996-312-900647 (w). <a href="mailto:kjamal@bk.ru">kjamal@bk.ru</a>	The Kyrgyz Republic signed the Rotterdam Convention on 11/08/1999 and ratified it on 25/05/2000	Order SAEPPG No. 01-13/329 from 22.12.2011
<b>FAO National Focal Point</b>	FAO	Derbishaliev J. S. – national Coordinator of the Kyrgyz Republic tel.: +996-312-45-52-98, tel.: +996-312-45-52-97 email: <a href="mailto:dephim@mail.ru">dephim@mail.ru</a>	coordinates projects of obsolete pesticides	
<b>EU/other project implementation units for hazardous waste</b>	FAO	Derbishaliev J. S. – national Coordinator of the Kyrgyz Republic tel.: +996-312-45-52-98, tel.: +996-312-45-52-97 email: <a href="mailto:dephim@mail.ru">dephim@mail.ru</a>	coordinates projects of obsolete pesticides. At present Project under implementation: «Improving capacities to eliminate and prevent recurrence of obsolete pesticides as a model for tackling unused hazardous chemicals in the former Soviet Union, under the Government of the Kyrgyz Republic»	
<b>Inter-departmental committees</b>	Ministry of Agriculture and Melioration	Deputy Prime Minister Sarpashev T.D.	coordinating work in the Republic of management of hazardous waste meets and till today one meeting has taken place	Disposal of the Government of Kyrgyz Republic
<b>Other national coordinating body</b>	State Agency on Environment Protection and Forestry under the Government	Baigobul Tolongutov tel.: +996-312 47-14-70, tel.: +996-775 58-59-40 email: <a href="mailto:BTolongutov@gmail.com">BTolongutov@gmail.com</a>	perfects adjusting mechanisms in the field of guard of environment (including to chemical, biological and radiation safety);	Government regulation of Kyrgyz republic 2.08.2012 No.536
<b>National waste focal point</b>				
<b>PRTR Protocol</b>				
<b>Other information:</b>				

## 2. Inventory

If references needed please provide in the concerned Annex

### 2.1 National/regional inventory updated

*(latest update and methodology, e.g. National guideline/NIP/World Bank/UNEP/FAO toolkit)*

The latest inventory was conducted in 2012. The inventory was conducted in accordance with international standards developed by the FAO (Food and Agriculture Organization of the UN), all data are included in the on-line registration system obsolete pesticide stocks (tool for accounting and risk assessment, developed by FAO). National administrator of the system in the Kyrgyz Republic is Department of chemicalization and plant protection of the Ministry of Agriculture and Melioration of the Kyrgyz Republic

Information on pesticide storage sites was taken into account as a criterion for the evaluation of pesticide-contaminated areas. The Inventory of stockpiles of prohibited for use or pesticides with expired shelf lives, was carried out by field studies of the locations where they are stored, used or buried throughout Kyrgyzstan. When conducting the inventory, the Technical Manual for Conducting an Inventory, Identifying, Collecting and Storing Pesticides that Are Obsolete and Prohibited for Use (approved on June 25th 2003 by the MAWRPI) and recommendations from the Interim guidance for developing a national implementation plan for the Stockholm Convention prepared by the World Bank and UNEP Chemicals (2004), were taken into consideration. Pesticide storages were studied at the same time as the inventory to identify obsolete pesticides was conducted.

### 2.2 Data sources and existing inventories (only Obsolete Pesticides)

*(who, what, when, how, accuracy, validity?)*

Inventory conducts training at the national team training during the period from March to September 2012.

Inventory conducted fieldwork in places where they are stored, used or buried throughout Kyrgyzstan. This old land, typical and atypical old warehouses. These are the places where the pesticides were mixed and then sprayed by planes

Special forms were filled in according to the FAO format. They reflect data on disposal of obsolete pesticides, description of the place, inventory, condition and volume of used containers, responsible person to conduct an inventory and photographs.

All Inventory data are fed into the FAO PSMS system

### 2.3 First National Implementation Plan (NIP)

*(e.g. responsible, year, No. of sites, estimated tons, desk study/field surveys (% of total locations), POPs pesticides, PCB and Dioxins)*

First National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants was developed and approved by order dated 03.07.2006, No.371-r of the Government of the Kyrgyz Republic. NIP ([cbd.minjust.gov.kg/act/view/ru-ru/18596](http://cbd.minjust.gov.kg/act/view/ru-ru/18596)) was developed in accordance with national plans, priorities and programs, taking into account the requirements of other Conventions (Rotterdam, Basel), the recommendations of international organizations, the international research centers, the expansion of regional and subregional cooperation.

The target was to identify the storage locations and the identification of obsolete pesticides, PCBs, dioxins

### 2.4 NIP update (specifically on new POPs)

*(e.g. responsible, year, No. of sites, estimated tons, desk study/field surveys (% of total locations))*

New POPs have not been studied, the inventory was not carried out, but currently State Agency on Environment Protection and Forestry under the Government is promoting the study of this problem

### 2.5 UNITAR Chemicals Profile

*(e.g. responsible, data on organic hazardous waste available?)*

Kyrgyzstan\_UNITAR Chemicals National Profile has been implemented with the technical assistance Training and Research Institute (UNITAR) and financial Assistance Trust Fund QSP for SAICM. See also under Annexes

### 2.6 National Pesticides/POPs inventory

*(e.g. responsible, other inventories independent from Convention frameworks)*

No

### 2.7 FAO PSMS inventory



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**Inventory Implementation:**

1. inventory training *Yes*
2. inventory work plan *Yes*
3. inventory field visits and data collection *Yes*
4. inventory data entry into PSMS *Yes*
5. inventory data validation – stocks and contaminated sites *Yes*

**3. Environmental Assessment**

If references needed please provide in the concerned Annex

**3.1. National requirements**

*EIA= Environmental Impact Assessment etc.) + national experience*

*Yes.*

EIA according to the national law (the Law on Environmental Protection, the Law on Environmental Expert Evaluation, the Law 'General Technical Regulations on Environmental Safety in the Kyrgyz Republic')

**3.2. International experience**

*non-FAO – WB, UNDP CESA etc.*

*Yes.*

Kyrgyzstan has a long experience in EIA and environmental assessment projects

**3.3. Capacity government and private to develop**

*Are there consultants or government trained people?*

Yes, there is a company with extensive experience in conducting EIA and national consultants

**3.4. FAO stages in Environmental Assessment (EA) and Environmental Management Plans (EMP) experience from EMTK v 3 Yes**  
*(Environmental Management Tool Kit for Obsolete Pesticides)*

Yes, Environment Assessment and Environmental Management Plan in this area have been developed within the Project "Elimination of Acute Risks of Obsolete Pesticides in Moldova, Georgia and Kyrgyzstan" in 2008, by Scientific and Production Company "Delta Engineering LLC", which has a license for this kind of work, EIA was developed by certified specialists according to requirements of environmental legislation

**Other information:**



#### 4. Inventory and Environmental Assessment Management

If references needed please provide in the concerned Annex

##### 4.1. Responsible Organisation for Inventory and Assessment in place and operational

Department of chemicalization and plant protection of the Ministry of Agriculture and Melioration of the Kyrgyz Republic  
The Department of chemicalization and plant protection has in its structure territorial authorities: Bishkek city department, as well as the 7 inter-departments.

State Agency on Environment Protection and Forestry under the Government (Law "On application of chemicals and plant protection" dated January, 25, 1999, №12)

##### 4.2. All managers/coordinators/field people in place and operational

Only 11 people. In the central office of 4 persons in each area one manager -7 people. Director of the Department is the national coordinator. Deputy Director is a national consultant

##### 4.3. All Field teams established and operational

In each area of the field is a group leader, a representative of an environmental authority, representative of the Ministry of Health and regional specialists chemicals and plant protection inter-department

##### 4.4. All Inventory data management people in place and operational

Permanent work specialists Department of chemicalization and plant protection of the Ministry of Agriculture and Melioration of the Kyrgyz Republic

##### 4.5. National/Regional Inventory updated

In 2012

##### 4.6. National Pesticides/POPs Inventory Established

2012/No

##### 4.7. Contaminated Sites Register

No

Other information:



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**5. Safeguarding**

If references needed please provide in the concerned Annex

**5.1. National projects**

No

**5.2. International projects**

Yes

**5.3. FAO projects**

Yes

**Other information:**

**6. Storage and transport**

Packaging / Containerization / Storage / Transportation

**6.1. Transport regulations**

*In-country transportation planning competences available?*

*(e.g. ADR/IMDG/RID/DOT compliant, route planning, scheme, vehicle inspection scheme, certified local contractors)*

Yes, transportation of pesticides and agrochemicals is allowed only in specially equipped vehicles.

Must obtain a license to transport. There is the capacity within the Kyrgyzstan Government and private industry to provide adequate transportation for personnel, equipment and repackaged obsolete pesticides

**6.2. Driver regulations**

*Driver registration*

Yes

**6.3. Storage regulations**

*(Seveso – off and on site emergency planning)*

Yes. National requirements

**6.4. Storage capacity**

*Private or government, collection centers available, (e.g. responsible, No. of suitable collection centers identified)*

Yes, Storage in village administration Sarai, Karasuu district, Osh (government)

Storage At-Bashy Naryn oblast (government)

**6.5. Incident reporting and accidents**

Yes. National requirements

**Other information:** Following repackaging, obsolete stocks will be transferred to the Government owned and operated Central Collection Centre. The stocks will be stored at the CCC until viable means of disposal are confirmed

**7. Disposal**

Note: Map 7 (for benchmarking)

**7.1. National experience**

**Technology selection** No

**Transboundary transport under Basel Convention** No

**National transport** No

**Disposal capacities in Country**

*(e.g. type and number of disposal facilities, (landfill/destruction) permits, quality and standards applied (national/international), ownership (public/private), contact details)*

No

**Project examples**

*(e.g. name project, tons, year, landfill or destruction facility, responsible authority (if possible, contact details)*

No

**7.2 International experience**

- **Technology selection** No
- **Transboundary transport under Basel Convention** No
- **National transport** No

**7.3 Experience with FAO**

No

**Other information:** In the country, there are no enterprises or technology on destruction of OP



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<b>8. Containers</b>
<b>8.1. National experience</b> No
<b>8.2. International experience</b> <i>e.g. Priorities on containers in NIP Action Plan</i> Project "Elimination of Acute Risks of Obsolete Pesticides in Moldova, Georgia and Kyrgyzstan" – storage in village administration Sarai, Karasuu district, Osh oblast (89,419 kg); 2008, (financed by the Netherlands Ministry of Foreign Affairs and implemented by MKI) Project GEF-FSP "Demonstrating and Scaling Up Sustainable Alternatives to DDT for the Control of Vector Borne Diseases in Southern Caucasus and Central Asia" (the DDT-Project)-Storage At-Bashy Naryn oblast (17.125 tonnes DDT) 2013 (Requirements for packaging pesticides, degraded and forbidden according to the law, must be sent for disposal, decontamination and disposal in their original packaging. In case of violation of packaging, repackaging allowed: liquid forms of pesticides – in metal containers (drums, jars, cans, etc.), powder preparations or mixtures thereof – in plastic bags)
<b>8.3. FAO supported plan</b> No
<b>8.4. Amount and type of empty containers/packaging materials?</b> <i>(e.g. materials recycling in types, amounts)</i> By the end of 2012, inventory in warehouses of used empty containers 7.813 tonnes (the system FAO PSMS)
<b>8.5. Collection Centres for empty containers?</b> <i>(e.g. Quantity of centres, responsibility, compliant with FAO guidelines?)</i> No
<b>Other information:</b>

**Section II: General overview of POPs and other hazardous waste data**

Info from Ministry of Commerce or Ministry of Industry or Ministry of Environment/Natural Resources and Ecology)

Category	Explanation to figures	Annually produced waste	Legacy waste	References/ Annexes
		volume, tonnes/year	volume, tonnes	
<b>I. Summary for all waste streams</b>				
<b>A. Agricultural chemical waste:</b> (see also parts already been filled in in the benchmarking section)				
<b>1. Obsolete pesticide waste</b>	Of the 454.7 tones of obsolete pesticides in Kyrgyzstan stores, the identity of 77% of the pesticides are unidentified at this stage		454.7	FAO PSMS system
<b>2. POPs pesticide waste:</b> <i>aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene (HCB*), mirex, toxaphen, chlordecone, alpha hexachlorocyclohexane (<math>\alpha</math>-HCH<sup>11</sup>)*, beta hexachlorocyclohexane (<math>\beta</math>-HCH)*, lindane, pentachlorobenzene*</i>	At Bashi, Naryn oblast (DDT) Suzak Kurgak Ukok		17.125 4,100 580	
<b>3. New pesticides waste (incl. fake (counterfeit) pesticides)</b>			no data	
<b>4. Empty containers waste</b>			7.8	FAO PSMS system
<b>5. Contaminated sites</b>				
<b>a. Burial sites (polygons)</b>	- Burial in area of Kurgak-Ukok at 12 km from village Kochkor, Kochkor district, Naryn oblast (5,000 m <sup>2</sup> ); 1979-80. See under 2. - Burial Suzak I in area of Ak-Chabyr, Suzak district, Jalal-Abad oblast (10 thousand m <sup>2</sup> ); 1973. See under 2. -Burial Suzak II in area of Tash-Baka Kungei, near village Kyzyl-Bairam, Jalal-Abad oblast, 1973.			

<sup>11</sup> HCH is often used in Russian as HCCH.

	<p>- Existing burial sites require substantial rehabilitation, as for today none of these sites has a responsible owner for appropriate measures on their safety</p> <p>Contaminated soil and building materials:</p>	40,450		
<b>b. Storage sites</b>	<p>- Storage in village administration Sarai, Karasuu district, Osh oblast (419 tons); 2008</p> <p>- Storage At-Bashy Naryn oblast (17.125 tonnes DDT) 2013:</p> <p>Total in stores:</p>	<p>419.00</p> <p>17.125</p> <p>436.125</p>		
<b>c. Usage sites</b> (airfields, formulation plants etc.)	42 contaminated sites have been found till today in the republic during the inventory, in fact there are many more		42 pcs	FAO PSMS system
<b>B. Industrial chemicals:</b>				
<b>1. POPs</b>				
<p>a. PCBs, HCB*, hexabromobiphenyl (HBB), hexabromodiphenyl ether and heptabromodiphenyl ether, pentachlorobenzene*, perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, tetrabromodiphenyl ether and pentabromodiphenyl ether (penta-BDE)</p> <p>b. brominated industrial chemicals</p> <p>c. Fluorinated industrial chemicals perfluorooctane sulfonyl fluoride (PFOS) and its salts and perfluorooctane sulfonyl fluoride (PFOSF)</p>	<p>This data for the southern region and Chui region:</p> <p>-PCBs contained in transformer oils identified:</p> <p>- Oils contaminated with PCBs during operation (identified):</p> <p>- Number of condensers (pcs):</p> <p>- The amount of oil in capacitors (pcs):</p>	<p>36 m<sup>3</sup></p> <p>20</p> <p>82</p> <p>2065</p>		Project "Management and Disposal of polychlorinated biphenyls in Kyrgyzstan."
<b>2. Contaminated sites</b> e.g. Contaminated containers, transformers and equipment	Identified 57 sites where repairs and maintenance of electrical equipment have taken place that could contain PCBs, estimates of quantities not possible at this stage		57 pcs	
<b>3. Oily wastes</b> e.g. non-POPs production waste, lagoons of sediments and sludges, solvents, waste lubricating oils	Data 2010	2712		Source: « National report on the state of the environment of the Kyrgyz Republic 2006-

				2011»
<b>4. Inorganic wastes</b> Solid, Liquid and sludge inorganic waste (often in many country with mining activities and metal industries)	At the end of 2012		10 Million	Source «National Statistical Committee KR»
<b>C. By-products</b>				
<b>1. Unintentional POPs</b> <i>Dioxins: Polychlorinated dibenzo-p-dioxins (PCDD) and Polychlorinated dibenzofurans (PCDF) and PCBs. Indicate sources like Pulp and paper production, Chlorinated inorganic chemicals, Chlorinated aliphatic chemicals, Chlorinated aromatic chemicals, Other chlorinated and non-chlorinated chemicals, Petroleum industry, Textile production, Leather refining</i> <i>Contaminated Sites and Hotspots: e.g Sites used for the production of chlorine, Production sites of chlorinated organics, Application sites of PCDD/PCDF containing pesticides and chemicals, Use of PCB, Use of chlorine for production of metals and inorganic chemicals, Waste incinerators, Metal industries, Fire accidents, Dredging of sediments and contaminated flood plains, Dumps of wastes/residues from source groups, Kaolin or ball clay sites</i>			No data	
<b>2. a-HCH*, b-HCH*</b> (being generated from the Lindane production) and <b>pentachlorobenzene*</b>			No data	
<b>3. HCB*</b> generated from PVC production and rubber tyres production			No data	
<b>D. Petroleum wastes</b> Tarry and bituminous wastes, still bottom waste (from Distillation plants)			No data	
<b>E. Inorganic wastes</b> Liquid and sludge inorganic waste Solid inorganic waste				
<b>F. Health Care Risk Waste</b>	- This data only for privately practicing and non-healthcare organizations (2012)		14820.589	

	Statistical reporting for public sector organizations was not provided in 2010 - Pharmaceutical waste, drugs and medicine 2010:	1886		
<b>Summary volumes</b>				
<b>Estimate of total hazardous waste market (watch need tones/year)</b>				
<b>POPs waste volume</b>	Total Burial sites and stores warehouses – 5189.6 tons, including POPs – 991 tons of contaminated soil  Contaminated soil and building materials: Including (pallets, shelves, empty container) – 114.6 tons		5,189.6*  40,450**	
<b>Other information added to this table:</b>				
<p>*HCB, a-HCH, b-HCH and pentachlorobenzene an occur as pesticide, by –product and industrial chemical. Please note that nuclear/radioactive waste will not be considered for this overview!</p> <p>**Comments on quantities of obsolete and POPS pesticides, sent by Mr. Almaz Alakunov, Dept of Chemification and plant protection, Ministry of Agriculture on 07.09.2015 to IHPA</p>				



**Section III: Existing and planned treatment options for POPs pesticides, obsolete pesticides and related hazardous wastes, contaminated land**

Type of plant or technology	Address/location	Contact person (name/contact details)	Brief summary of technical data (treatment capacity, permit for treatment of types hazardous waste, permit info, date permit)	No. of reference /annex if needed
<b>1. Existing plants</b> <i>e.g. existing and functioning hazardous waste landfills (polygons) or soil treatment plants</i>				
1. Private owned	No			
2. Government owned	No			
<b>2. Potential plants</b> <i>e.g. existing modern cement kilns and collect all data, photos, schemes, interest of companies to deal with OPs and POPs waste and contaminated soil destruction) Details include in Annexes</i>				
1. Private owned				
2. Government owned				
<b>3. Planned facilities</b> <i>Government and or privately planned new hazardous waste facilities e.g. for treatment of oil waste in oil and gas industry</i>				
1. Private owned	Kant Cement Plant 725000, Kyrgyz Republic, Chui Oblast, Ysykata rayon, Kant city, West industrial zone	tel.: +996 (3132) 5-82-22, 5-77-17, 5-28-65 e-mail: <a href="mailto:cement@cement.kg">cement@cement.kg</a> URL: <a href="http://www.slateplant.narod.ru">www.slateplant.narod.ru</a> , <a href="http://www.cement.kg">www.cement.kg</a>	Founded 1964. Production method – wet production. Capacities: cement production – 1 316 thousand tones/year, clinker – 1 053 thousand tones/year	Russian version for this info exists Annex 2
	South-Kyrgyz Cement Plant Batken Oblast, Kyzyl-Kia city, Asanalieva str.	tel.: +996 (3657) 5-60-04, 5-14-61, 5-12-77 fax: +996 (3657)5-60-06	Capacity – 1 million t of cement/year Production method – dry production	Annex 2
	South Combine of Construction Materials/Aravan Cement Plant, Osh Oblast, Arvan Rayon, s/y Allya-Anarova, sect. Shor-Bulak	tel.: +996 (3222) 8-41-45, 4-64-77 tel.: +996 (772) 55-99-55	Founded – 18 September 2008 200 thousand tones of cement, 170 thousand tones of clinker/year	Annex 2
	AO Kyrmentycement Issyk Kul Oblast, Issyk Kul Rayon Ak-Bulak village, 1,	tel.: +(963-945) 3-14-37 tel.: +996 (3945) 3-12-93, 3-12-92, 3-12-91	Funded in 1954, since 2008 property of Karaganda Asbestos Cement (KZ)	Annex 2

	A.Usonov str.			
<b>2. Government owned</b>	No			
<b>4. Planned and/or implemented pilot plants</b> <i>e.g. as part of research programmes in cooperation with donors/universities/research institutes pilot plants that are being tested for hazardous waste and soil</i>				
<b>1. Private owned</b>	1 plant has interest to deal with OPs and POPs Heidelberg group			
<b>2. Government owned</b>	No			
<b>5. Existing and/or planned empty container (plastic and or steel) recycling facilities/initiatives</b> <i>Steel recycling e.g. at existing steel industry and plastic at existing plastic industry</i>				
<b>1. Private owned</b>	<b>Metal containers</b> Depending on the level of residual contamination empty metal containers can either be sent for recycling at a local iron or steel smelter or sent for disposal at a high temperature incinerator. <b>Plastic Containers</b> As the majority of containers have been part of the inventory for a considerable period of time and will not be amenable to washing or triple rinsing it is unlikely that they will be suitable for recycling. The alternatives remaining are disposal to landfill or incineration by high temperature incineration. <b>Wood including pallets</b> Contaminated wood should be sent for high temperature incineration. <b>Other materials including glass, aluminium and cardboard</b> Since the level of contamination of these containers is difficult to assess these materials should be sent for high temperature incineration			
<b>2. Government owned</b>	No			
<b>6. Any other information related to important market players in this field</b> <i>List names of the major market players with address and main address/location, Contact person (name/contact details) and indicate their main interest</i>				
<b>Organic Pesticides</b> Examination of the inventory indicates that the main part consists of organic pesticides. Updated general technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants (POPs) give recommendations on destruction technologies and also list the various available technologies. Most experiences have been made a thermal method of which rotary kiln high temperature incineration (RKHTI). Unfortunately, there are no RKHTI plants available within the region yet; those that will be available in the short term (plants under preparation in Kazakhstan, will not yet be in production for the next 5 years and thereafter will be focused on their own market for the first years). On the other hand, there are considerable risks and high costs connected to send waste by road and sea the very long distance to plants in Western Europe. An alternative disposal method could be the use of cement kilns converted to incinerate hazardous wastes. It is proposed that a more detailed assessment of the potential for modern commercial cement kilns within the Kyrgyz Republic is undertaken. <b>Other pesticides; Heavy Metal Containing Wastes</b> These wastes are not suitable for thermal treatment. Ideally they should be sent for recycling or chemical treatment. Where this is not possible long term storage would be preferable followed by stabilization and landfilling				

## Section IV: Transportation logistics

### 1. Assessment of various transport alternatives from main stockpile locations (indicate large locations/or regions with more than 500 t separately to the existing/planned treatment facilities incl. cost estimate

Treatment facility in country and/or in foreign countries	Stockpile region/location	Transport method/alternatives – distances Rail-Road-waterway or combination of them Indicate main ports/railway stations etc. and supply maps where possible	Cost indications Problems to be expected	No. of reference /annex if needed
1. In country 2. In foreign country	No No			

Given the requirements of the conventions and laws of neighboring states, in case of need for transportation of obsolete pesticides and waste associated with them to their destruction, is only possible air transport

### 2. Assessment of possible storage networks: waste transfer stations e.g. at main railway stations or at existing landfills (polygons) or Waste handling stations

*List and describe existing stations with required details*

Following repackaging, obsolete stocks will be transferred to the Government owned and operated Central Collection Centre (CCC). The stocks will be stored at the CCC until viable means of disposal are confirmed

### 3. Assessment of transport capacity

*Private owned and government owned specialized and licensed transport companies for hazardous waste transport (e.g. ADR/IMDG/RID/DOT compliant, route planning, scheme, vehicle inspection scheme, certified local contractors) Describe here, if not already covered under I. Benchmarking under 6. Storage and transport and 7. Disposal*

Transport using carefully selected haulers. Supervision of transportation. Strict adherence to local and international regulations and conventions (IMDG/ADR code and Basel Convention)

### 4. Reference to the requirements of the Basel Convention (+ previous) experiences made with international export Implications of custom facilities

*Describe Cases/ experiences that country have been made with international exports, not already covered under I. Benchmarking under 7.2 International experience Indicate year and location (country) where transported from and where to and authorities involved and kind of waste. Briefly describe cases*

#### Case 1: Storage in village administration Sarai, Karasuiskiy district, Osh oblast (89.419 kg); 2008.

- Environment Assessment and Environmental Management Plan in this area have been developed within the Project “Elimination of Acute Risks of Obsolete Pesticides in Moldova, Georgia and Kyrgyzstan” in 2008, by Scientific and Production Company “Delta Engineering LLC”, which has a license for this kind of work, EIA was developed by certified specialists according to requirements of environmental legislation.

- Before the project commences personnel received training emphasizing the pesticide segregation, packaging and labelling according to rules and regulations laid out in the IMDG/ADR.

- Repackaging, transport personnel and equipment was the responsibility of the MoE and was realized on a site to site basis. Ensuring strict adherence to local and international regulations and conventions (IMDG code and BASEL Convention)

#### Case 2: Storage At-Bashy, Naryn oblast (17.125 t DDT) 2013 as part of the FAO (EU financed) project «Improving capacities to eliminate and prevent recurrence of obsolete pesticides as a model for tackling unused hazardous chemicals in the former Soviet Union, under the Government of the Kyrgyz Republic»

- Environment Assessment and Environmental Management Plan Prepared by: Russell Cobban, technical consultant.

- All the staff is part of the team performing work will be trained in detail the work to be carried out.

- DDT repackaged bags will be placed in the cargo container near the warehouse where you store bags. Bags will remain in storage

until destruction in a licensed facility as soon as it is organized.

- Transportation will be arranged for the destruction at a later date.

- Note: due to lack the warehouses in the Republic and of appropriate containers (IMDG code and BASEL Convention), repacking has been made in similar containers



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## Summary sheets on findings

### - Identify the gaps in information

Incomplete information according to section 2, in view of its absence

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

- Lack of political support.
- There are facts of import and use of counterfeit and contraband pesticides and agrochemicals.
- Current monitoring does not provide necessary laboratory control of used counterfeit and contraband pesticides
- Inability to assess harmful effect of using counterfeit and contraband pesticides on human health and environment
- In the country, there are no enterprises or technologies on the management and destruction of OP.
- Level of Detail (FAO PSMS/others), inability to identify all revealed stocks.
- Lack of adequate certified material for repackaging.
- Lack of suitable storage for safeguarded stocks

### - Analysis of opportunities (technical, economic) to the development of national and regional waste management capacity

- Need to assess the needs of the life-cycle of pesticides and develop priority recommendations for action.
- After repeated costs for inventory under previous projects, it is essential to pursue the case – repack OP and ensure safe storage prior to elimination.
- Ensure safe storage of OP prior elimination.
- Raising public awareness on safe handling of pesticides in the field.

Existing burial sites require substantial rehabilitation

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

In the statistics do not give some information on the production of chemicals, the quantities of recycled waste

## References

With normative legal acts of the Kyrgyz Republic in the field of environmental protection can be found here  
<http://www.nature.kg/lawbase/index.htm>

Refer. No.	Document name
[1]	<p><b>The Law on Chemicalization and Protection of Plants (1999)</b> identifies the legal, economic, environmental, social and organizational framework of plants chemicalization and protection in the interest of protected health of people, animals, environment, prevention or elimination of consequences of soil, vegetation and animal products contamination.</p> <p>In order to implement the Law, there has been adopted the KR Government Resolution ‘On the Measures of Environmental Protection and Protection of People’s Health from Adverse Effects of Certain Hazardous Chemical Substances and Pesticides’ dated 27 July 2001 No 376 that includes the List of Chemical Substances and Pesticides which use is prohibited or strictly limited.</p> <p>In accordance with Article 3 of the law “On Chemicalization and Protection of Plants”, there is a ban on the supply and use of pesticides that have not passed registration tests and are not included into the List of Pesticides and Agrochemicals allowable for the use in the Kyrgyz Republic.</p> <p>Also, the KR Government Resolution “On Approved State Catalogue of Pesticides and Agrochemicals Allowable for the Use in the Kyrgyz Republic for 2011-2019”, was adopted.</p> <p>This does not exist yet as an official document, as special technical regulation on the safe use of pesticides</p>
[2]	<p><b>Law of the Kyrgyz Republic "On Environmental Protection" (16.06. 1999, No.530)</b> Defines the basic principles of environmental protection</p>
[3]	<p><b>Law of the Kyrgyz Republic “On Production and Consumption Wastes” (13.11 2001, No.89)</b> In accordance with this Law, obsolete pesticides may be considered as hazardous wastes</p>
[4]	<p><b>The Law on Environmental Expert Evaluation (1999)</b> constitutes the main legislation related to environmental assessment. Its objectives include prevention of adverse impacts on human health and environment that take place as a result of economic and other activities, and ensured compliance of this activity with the environmental requirements of the country</p>
[5]	<p><b>The KR Law ‘General Technical Regulations on Environmental Safety in the Kyrgyz Republic’</b> in accordance with the KR Law ‘On the Bases of Technical Regulation in the Kyrgyz Republic’, is used with a view to protect the environment and identifies main provisions on technical regulation in the area of environmental safety; also, establishes general requirements to ensuring environmental safety while designing and implementing activities at the facilities of economic and other agents for the processes of production, storage, transportation and disposal of products</p>
[6]	<p><b>Kyrgyzstan UNITAR Chemicals National Profile (2009)</b> Review national legislation pesticides. Review of national priorities (<a href="http://www2.unitar.org/cwm/publications/cw/saicm/CA/Kyrgyzstan_CA.pdf">www2.unitar.org/cwm/publications/cw/saicm/CA/Kyrgyzstan_CA.pdf</a>)</p>
[7]	<p><b>National Implementation Plan for Kyrgyzstan (2006)</b> National Implementation Plan for the Stockholm Convention has identified key actions to reduce harmful effects of persistent organic pollutants on human health and environment (<a href="http://cbd.minjust.gov.kg/act/view/ru-ru/18596">cbd.minjust.gov.kg/act/view/ru-ru/18596</a>)</p>
[8]	<p><b>The National Report on the State of the Environment of the Kyrgyz Republic for 2006-2011, State Agency on Environment Protection and Forestry under the Government of the Kyrgyz Republic, UNDP-UNEP Poverty and Environment Initiative in the Kyrgyz Republic</b>  <a href="http://www.kg.undp.org/content/kyrgyzstan/en/home/library/environment_energy/the-national-report-on-the-state-of-the-environment-of-the-kyrgyz.html">http://www.kg.undp.org/content/kyrgyzstan/en/home/library/environment_energy/the-national-report-on-the-state-of-the-environment-of-the-kyrgyz.html</a> Russian and English version available for downloading</p>



## ANNEXES

**Annex 1: Terms of Reference for IHPA for coordination of a Disposal Study for Obsolete Pesticides in the Former Soviet Union**

**Annex 2: Overview of information collected on Kyrgyz Cement kilns**

**Annex 3: Production of hazardous waste (year 2012)** supplied by Tatiana Volkova (19 November 2014) and received from focal point of the Basel Convention in Kyrgyzstan

**Annex 4: Waste Production and Disposal in the Kyrgyz Republic, Waste Statistics Seminar, 11-13 April 2012**  
(Copies of some of the slides)



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**Annex 1: Terms of Reference for IHPA for Coordination of a Disposal Study for Obsolete Pesticides in the Former Soviet Union (only in English)**



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**Terms of Reference for Consultant/PSA**

<b>Job Title</b>	Coordination and implementation of a Disposal Study for Obsolete Pesticides in the Former Soviet Union		
<b>Division/Department</b>	AGPM		
<b>Programme/Project Number</b>	GCP/RER/040/EC		
<b>Location</b>	Regional		
<b>Expected Start Date of Assignment</b>	1 June 2012	<b>Duration</b>	1 year
<b>Reports to</b>	Kevin Helps	<b>Title:</b>	Coordinator, Senior Officer, Obsolete Pesticides

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The EC/FAO project GCP/RER/040/EC looks to develop capacity for management of hazardous wastes through the example of obsolete pesticides and POPs. There is an estimated 200,000 tones of these materials known to be affecting the Russian Federation, countries of the Eastern Neighbourhood (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) and the Central Asian Countries [CACs] (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan). Much of the previous work on disposal of waste from these countries has looked to export thousands of tones 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 CACs to facilities in Europe makes the option of finding a local solution appealing based on risk management and cost considerations. Under the project a study of capacity to treat this material is to be commissioned. The Coordinator for the Disposal Study will for the 12 project countries:

- i. Review of existing policy framework for the management and elimination (including inventory, assessment, and transport) of POPs and obsolete pesticides in line with the requirements of the respective EU Directives/Stockholm Convention;
- ii. 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 per country
- iii. Review of existing agricultural policy framework on the linkage to fulfillment of environmental obligations such as requirements for the management of contaminated empty containers/packaging
- iv. Review of existing and planned treatment options for POPs pesticides, obsolete pesticides and related hazardous wastes, contaminated empty containers and contaminated land;
- v. 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.
- vi. 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. To be completed with due reference to the requirements of the Basel Convention.
- vii. 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;
- viii. Review existing country POPs data (Obsolete Pesticides 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 will



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be collated per country in order to assess the potential need for future investment per country/region. Provide estimates of the scale of investments (in terms of tones of POPs for disposal) and a rough estimation of their national distribution, tones of other obsolete pesticides, distribution and quantities of contaminated land and contaminated containers;

- ix. Assess status of recycling options for empty containers or already planned or ongoing programs and initiatives;
- x. Prepare country summary sheets on findings and identify the gaps in information;
- xi. Compile report of study findings, including recommendations for filling the information gaps.

The study will be undertaken in countries and through desk research as appropriate and will be implemented with the support of thematic international experts and national experts to be recruited as sub-contractors to the Coordinator of the Disposal Study. The coordinator will prepare draft terms of reference for all consultants within 2 months of the start of the study which will be approved by the Regional Coordinator of project GCP/RER/040/EC at FAO before final recruitment is made. All information collected and assessments conducted will (if possible) be verified by competent national authorities in order to seek ownership and support for further project activities.

The working language is English and some interpretation and document translation is foreseen.

#### KEY PERFORMANCE INDICATORS

##### Expected Outputs:

- i. Summary report of existing policy framework for the elimination and management of POPs and obsolete pesticides (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 September 2013, finalization of the report incorporating eventual comments

##### Required Completion Date:

All by end of June 2013

September 2013

#### REQUIRED COMPETENCIES

##### Academic Qualification

- 1. First degree in chemistry, engineering, environmental science or similar subject area related to chemicals management;
- 2. Higher degree (PhD) in a waste management related area, chemistry or engineering discipline linked to chemicals management;
- 3. Research or (university) lecturing experience related to waste and POPs management.

##### Technical Competencies and Experience Requirements

- 1. Minimum 20 years experience in the waste management and soil remediation industry / research sector;
- 2. Experience in development of risk-based strategies for POPs treatment using a combination of in-situ and ex-situ technologies;
- 3. Experience in development of POPs remediation plans in developing countries, experience in Asia region desirable;
- 4. Minimum 10 years experience in development of cost-based budgets for project implementation;
- 5. Excellent understanding of FAO guidelines and training systems for POPs / pesticide management and contaminated site assessment;
- 6. Excellent computer skills;
- 7. Excellent report and proposal writing skills;
- 8. Fluency in English.



## **Annex 2: Overview of information collected on Kyrgyz Cement kilns**

### **Kant Cement Plant**

Address: 725000, Kyrgyz Republic, Chui Oblast, Ysykata rayon, Kant city, West industrial zone

Tel: **+996 (3132) 5-82-22, 5-77-17, 5-28-65**

E-mail: [cement@cement.kg](mailto:cement@cement.kg)

URL: [www.slateplant.narod.ru](http://www.slateplant.narod.ru), [www.cement.kg](http://www.cement.kg)

Foundation year: 1964

Capacity: cement production – 1 316 000 tones/year, clinker – 1 053 000 tones/year

#### **History**

Kant Cement Plant was built in 1964 by a project developed by “Novorosgiprocement” Institute (USSR) with 5 lines of rotating kilns.

#### **Production**

- Production method – wet production.
- Fuel – gas and motor oil.

#### **Products**

- Portland cement ПЦ 400-Д0
- Portland cement ПЦ 500-Д0
- Portland cement with mineral adding ПЦ 400-Д20
- Portland cement with mineral adding plastified ПЦ 400-Д20-ПЛ
- Portland cement sulfate resistant ЦСПЦ 400-Д0
- Portland cement sulfate resistant with mineral adding ЦСПЦ 400-Д20
- Asbocement (Asbestos products (roof cover and pipes)

### **South-Kyrgyz Cement Plant**

Tel: **+996 (3657) 5-60-04, 5-14-61, 5-12-77**

Fax: **+996 (3657)5-60-06**

Address: Batken Oblast, Kyzyl-Kia city, Asanalieva str.

The “South-Kyrgyz Cement Plant” is situated in the city Kyzyl-Kia city of the Batken Oblast. The Capacity of the plant is of 1 million tones of cement per year. The Plant produces various types of cement, as well as the trade mark “900”.

The “South-Kyrgyz Cement Plant” is the property of the Kazakh Holding “Vernii Capital”, an investment company, the owner of which is TOO Verny Investments Holding.

According to the data of the Ministry of Justice, the director of the plant is Usoltsev Yuri Alexandrovici.

#### **Production**

- Production method – dry production
- Fuel – coal

### **South Combine of Construction Materials (Aravan Cement Plant)**

Address: 714000, Kyrgyz Republic, Osh Oblast, Arvan Rayon, s/y Allya-Anarova, sect. Shor-Bulak

Tel: +996 (3222) 8-41-45, 4-64-77, +996 (772) 55-99-55

Tel: +(996-3222) 2-54-86 (central office)

Fax: + (996-3222) 2-54-86 (central office)

#### **History**

"Aravan Cement Plant" was launched on 18 September 2008. The project capacity of the plant is of 200 th tones of cement, 170 000 tones of clinker/year.

#### **Production**

- Production method – semy-dry production.
- Fuel – coal.



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**Products**

- Portland cement ПЦ 400-Д0-Н
- Portland cement ПЦ 500-Д0-Н

**ОАО "Kurmenty cement "**

Tel: +(963-945) 3-14-37 (Chairman of board)

Tel: +996 (3945) 3-12-93, 3-12-92, 3-12-91

Address: Issyk Kul Oblast, Issyk Kul Rayon Ak-Bulak village, 1, A.Usonov str.

**History**

"Kurmenty Cement Plant" is placed in the village Ak-Bulak in the Issyk Kul Oblast. The plant was built in 1954 and was focused on the production of high types of cement. The project capacity is of 120 000 tones of cement per year.

Since 2006 the company Karaganda Asbestos Cement (KZ) purchased 83% of shares of the shares "Kurmenty Cement Plant". The plans of the investors are to restore the level of production. Currently the capital restoration of the plant took place.

**Production**

- Production method – wet production.
- Main raw material – limestone.

**Products**

- Portland cement ПЦ 500-Д0
- Portland cement ПЦ 550-Д0
- Portland cement ПЦ 600-Д0



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**Annex 3: Production of hazardous waste (year 2012)** supplied by Tatiana Volkova (19 November 2014) and received from focal point of the Basel Convention in Kyrgyzstan

### CATEGORIES OF WASTES TO BE CONTROLLED

#### Waste Streams

- Y1 Clinical wastes from medical care in hospitals, medical centers and clinics – 14820,589 ton
- Y2 Wastes from the production and preparation of pharmaceutical products – 1848 ton
- Y3 Waste pharmaceuticals, drugs and medicines
- Y4 Wastes from the production, formulation and use of biocides and phytopharmaceuticals
- Y5 Wastes from the manufacture, formulation and use of wood preserving chemicals
- Y6 Wastes from the production, formulation and use of organic solvents
- Y7 Wastes from heat treatment and tempering operations containing cyanides – 4749656 ton
- Y8 Waste mineral oils unfit for their originally intended use – 1789 ton
- Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions
- Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs) – 100 ton
- Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment – 95 ton
- Y12 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
- Y13 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
- Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
- Y15 Wastes of an explosive nature not subject to other legislation
- Y16 Wastes from production, formulation and use of photographic chemicals and processing materials
- Y17 Wastes resulting from surface treatment of metals and plastics – 1467 ton
- Y18 Residues arising from industrial waste disposal operations – 96 ton

#### Wastes having as constituents: (2010 y)

- Y19 Metal carbonyls
- Y20 Beryllium; beryllium compounds
- Y21 Hexavalent chromium compounds
- Y22 Copper compounds – 7,200 ton
- Y23 Zinc compounds
- Y24 Arsenic; arsenic compounds – 1260,000 ton
- Y25 Selenium, selenium compounds
- Y26 Cadmium; cadmium compounds
- Y27 Antimony; antimony compounds
- Y28 Tellurium; tellurium compounds
- Y29 Mercury; mercury compounds – 2,300 ton
- Y30 Thallium; thallium compounds
- Y31 Lead, lead compounds
- Y32 Inorganic fluorine compounds excluding calcium fluoride – 5191,700 ton
- Y33 Inorganic cyanides – 842,000 ton
- Y34 Acidic solutions or acids in solid form – 145 ton
- Y35 Basic solutions or bases in solid form
- Y36 Asbestos (dust and fibres) – 6594 ton
- Y37 Organic phosphorous compounds – 113 ton
- Y38 Organic cyanides
- Y39 Phenols; phenol compounds including chlorophenols
- Y40 Ethers
- Y41 Halogenated organic solvents
- Y42 Organic solvents excluding halogenated solvents
- Y43 Any congener of polychlorinated dibenzo-furan
- Y44 Any congener of polychlorinated dibenzo-p-dioxin
- Y45 Organohalogen compounds other than substances referred to in this Annex (e.g. Y39, Y41, Y42, Y43, Y44).



### CATEGORIES OF WASTES REQUIRING SPECIAL CONSIDERATION (2012 year)

Y46 Wastes collected from households – 980400 ton

Y47 Residues arising from the incineration of household

#### LIST OF HAZARDOUS CHARACTERISTICS

Y37 Organic phosphorous compounds 113 ton

Y38 Organic cyanides

Y39 Phenols; phenol compounds including chlorophenols

Y40 Ethers

Y41 Halogenated organic solvents

Y42 Organic solvents excluding halogenated solvents

Y43 Any congener of polychlorinated dibenzo-furan

Y44 Any congener of polychlorinated dibenzo-p-dioxin

Y45 Organohalogen compounds other than substances referred to in this Annex (e.g. Y39, Y41, Y42, Y43, Y44).

### CATEGORIES OF WASTES REQUIRING SPECIAL CONSIDERATION (2012 year)

Y46 Wastes collected from households 980400 ton

Y47 Residues arising from the incineration of household

#### LIST OF HAZARDOUS CHARACTERISTICS

##### UNo.Class\* Code Characteristics

##### 1 H1 Explosive

An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.

##### 3 H3 Flammable liquids

The word "flammable" has the same meaning as "inflammable". Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc., but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5 deg. C, closed-cup test, or not more than 65.6 °C, open-cup test. (Since the results of open-cup tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such differences would be within the spirit of this definition.)

##### 4.1 H4.1 Flammable solids

Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.

##### 4.2 H4.2 Substances or wastes liable to spontaneous combustion

Substances or wastes, which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being then liable to catch fire.

##### 1.3 H4.2 Substances or wastes which, in contact with water emit flammable gases

Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities

##### 5.1 H5.1 Oxidizing

Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion of other materials.

##### 5.2 H5.2 Organic Peroxides

Organic substances or wastes, which contain the bivalent-o-o-structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.

##### 6.1 H6.1 Poisonous (Acute)

Substances or wastes liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.

##### 6.2 H6.2 Infectious substances

Substances or wastes containing viable microorganisms or their toxins, which are known or suspected to cause disease in animals or humans.



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#### 8 H8 Corrosives

Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.

#### 9 H10 Liberation of toxic gases in contact with air or water

Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.

#### 9 H11 Toxic (Delayed or chronic)

Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.

#### 9 H12 Ecotoxic

Substances or wastes which if released present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.

9 H13 Capable, by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.



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# Waste Production and Disposal in the Kyrgyz Republic



Waste Statistics Seminar,  
11-13 April 2012,  
Geneva



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## Wastes by Activity Types

Waste Generation by Sources		
	Unit	2010
Agriculture, forestry and fishery (ISIC 01-03)	1,000 t/year	17.9
Mining and working of quarries (ISIC 05 -09)	1,000 t/year	5,606.8
Processing industry (ISIC 10-33)	1,000 t/year	156.1
Supply of electricity, gas, steam and conditioned air (ISIC 35)	1,000 t/year	...
Building (ISIC 41-43)	1,000 t/year	3.6
Other economic activity types, except for ISIC 38	1,000 t/year	22.4
Total volume of municipal wastes	1,000 t/year	1,114.6
including household wastes	1,000 t/year	468.8
Total wastes	1,000 t/year	6,921.4
among them toxic hazardous wastes	1,000 t/year	5,745.9

## Toxic Wastes per Hazard Classes in 2010, thou.tons

	Wastes of all hazard classes	including				
		Class 1	Class 2	Class 3	Class 4	Class 5
Toxic wastes are stored in arranged storage and disposal sites as of the end of accounting year	83,081.7	3,324.3	12.5	0.7	79,744.2	-
Toxic wastes generated per annum	5,745.9	1.7	4.2	0.1	5,739.8	0.1
Toxic wastes consumed in enterprises	0.2	0.2	-	-	0.0	-