

Working Document
Management of Obsolete
Pesticides

Republic of Kazakhstan



Food and Agriculture
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United Nations



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

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 Law of the Republic of Kazakhstan "On ratification of the Rotterdam Convention on the Prior Informed Consent for Certain Hazardous Chemicals and Pesticides in International Trade" No.239 approved at 20 March 2007.

Focal Point Institute is the Ministry of Energy of the Republic of Kazakhstan (hereinafter – the MoE)

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

The Law of the Republic of Kazakhstan "On ratification of the Stockholm Convention on Persistent Organic Pollutants" No. 259 approved at 7 July 2007

Focal Point Institute is the Ministry of Energy of the Republic of Kazakhstan.

In accordance with paragraph 29 of Article 17 of the Environmental Code of the Republic of Kazakhstan (hereinafter – the EC RK) in order to implement the Law of the Republic of Kazakhstan dated June 7, 2007 No.259 "On ratification of the Stockholm Convention on Persistent Organic Pollutants " (hereinafter – the Stockholm Convention) and Law of the Republic of Kazakhstan dated February 10, 2003 number 389 "On the accession of the Republic of Kazakhstan to the Basel Convention on the Control of transboundary movements of Hazardous wastes and their Disposal" (hereinafter – the Basel Convention) Rules of handling persistent organic pollutants and wastes containing them were developed and approved by Order of the MoE of the Republic of Kazakhstan dated 24 February 2012 number 40-█. These Rules were designed to prevent the introduction into the environment and propagation of polychlorinated biphenyls (hereinafter – the PCBs).

At the same time the MoE of the Republic of Kazakhstan is planning at 4th quarter of 2014 to develop and approve the resolutions of the Government of the Republic of Kazakhstan "On approval of the obligations of the Republic of Kazakhstan under the Stockholm Convention on Persistent Organic Pollutants"

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 Law of the Republic of Kazakhstan On the accession of the Republic of Kazakhstan to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal No.389 approved at 10 February 2003

In accordance with the Environmental Code of the Republic of Kazakhstan dated January 9, 2007 and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal of 22 March 1989 (hereinafter – the Basel Convention) Rules for import, export and transit of waste, were developed and approved by the Decree of the Government of the Republic of Kazakhstan from December 31, 2013 No.1535. These Rules prescribe the procedure for import of waste into the territory of the Republic of Kazakhstan, waste removal from the territory of the Republic of Kazakhstan, as well as the transit of waste through its territory.

In accordance with paragraph 29 of Article 17 of the Environmental Code of the Republic of Kazakhstan in order to implement the Law of the Republic of Kazakhstan dated June 7, 2007 No.259 "On ratification of the Stockholm Convention on Persistent Organic Pollutants " (hereinafter – the Stockholm Convention) and Law of the Republic of Kazakhstan dated February 10, 2003 number 389 "On the accession of the Republic of Kazakhstan to the Basel Convention on the Control of transboundary movements of Hazardous wastes and their Disposal " (hereinafter – the Basel Convention) Rules of handling persistent organic pollutants and wastes containing them were developed and approved by Order of the Minister of Environment of the Republic of Kazakhstan dated 24 February 2012 number 40-█. These Rules were designed to prevent the introduction into the environment and propagation of polychlorinated biphenyls (hereinafter – the PCBs)



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As the MoE of the Republic of Kazakhstan is a Focal Point for all three conventions it has a Strategic Plan of the Ministry of Environment of the Republic of Kazakhstan for 2010-2014 (hereinafter – Strategic Plan) approved by Government of the Republic of Kazakhstan dated February 25, 2010 number 1270. One of the aim objectives of the Strategic Plan is “to continue to conduct inventory technogenic mineral formations (hereinafter – TMF) to identify active stocks and address utilization multimillion overburden dumps and tailings. Another problem for the country is to address persistent organic pollutants (hereinafter – POPs), obsolete pesticides and contaminated areas. Moreover, Kazakhstan is obliged to submit annual reports on three conventions governing the management of hazardous chemicals and wastes: Basel, Stockholm and Rotterdam”

International Agreements

Any Bilateral, Multilateral or Regional Agreements signed in the field of pesticides waste management?

Does your country cooperate with other states in monitoring the effects of the management of pesticides wastes on human health and the environment? (legal or political documents).

Any guidelines or codes of practice developed in cooperation with other countries?

- The decision of the Board of Eurasian Economic Commission of 25 December 2013 No.306 About the Agreement on the transboundary movement of hazardous wastes on a single customs territory of the Customs Union.
- The decision of the Customs Union Commission on May 28, 2010 No.299 the Uniform sanitary and epidemiological and hygienic requirements for goods subject to sanitary and epidemiological supervision (control)



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Section II: Regulatory framework on waste management

Chapter I Political and Legal Framework

General overview

Legislative approach in the regulation of pesticides in Kazakhstan is based on laws, rules, regulations and other statutory instruments warning and prevent harmful effects of pesticides.

Regulation of pesticides in Kazakhstan is based on the principles of prevention and preventing the harmful effects of pesticides (insecticides) on human health, agricultural pollution, environment during the phytosanitary measures.

National Laws and regulations that govern hazardous waste (especially OP) management:

1) Law of the Republic of Kazakhstan "On state regulation of agriculture and rural areas" ratified on July 8, 2005 No.66 – the promotion of the functioning of public storage of special items (burial), pesticides and their containers;

2) Law of the Republic of Kazakhstan "On Food Safety" ratified. July 21, 2007 No.301 – the requirements for food production and security;

3) Law of the Republic of Kazakhstan "On Plant Protection" ratified on July 3, 2002 No.331-II;

4) Law of the Republic of Kazakhstan "On Plant Quarantine" on February 11, 1999 No.344-I – to establish a reserve of pesticides (insecticides) to conduct activities on plant quarantine in accordance with the laws of the Republic of Kazakhstan;

5) Environmental Code of the Republic of Kazakhstan ratified on July 9, 2007 No.212 – on the treatment of hazardous waste (including obsolete pesticides)

6) Code of the Republic of Kazakhstan "On people's health and the health care system" ratified on September 18, 2009 No.193-IV – a potentially hazardous chemical and biological agents, as well as on the treatment of them;

7) Law of the Republic of Kazakhstan "On Specially Protected Natural Territories" dated July 7, 2006 No.175 prohibiting the use of pesticides in such areas;

8) Law of the Republic of Kazakhstan "On the use of the airspace of the Republic of Kazakhstan and aviation" ratified on July 15, 2010 No.339-IV – on the use of aerial work in agriculture (dropping from aircraft or other substances and waste materials that are harmful to human health and environment, except for the production of aviation works in agriculture, operated in compliance with the security measures of the population and the environment);

9) Law of the Republic of Kazakhstan "On the safety of chemical products" dated July 21, 2007 No.302 – regulates public relations, by definition, the establishment, implementation and performance requirements to ensure the safety of chemical products and processes of its life cycle to protect human life and health, and to prevent actions that may mislead consumers about the safety of chemical products. Requirements of this Act shall not apply to: 1) mineral occurrence in the state, and 2) of the finished product, and 3) radioactive substances, materials and wastes, 4) food products, 5) products, which in use do not change the chemical composition and aggregation state and do not emit hazardous chemicals in concentrations that could have adverse effects on human life and health, the environment, except for perfume and cosmetic products and household products. Information on categories of chemical products, the kinds of dangers and measures to ensure the safe handling of chemical products established by technical regulations in the field of safety of chemical products.

Any policies or strategies at the national level (federal level) aimed at the prevention of pesticides waste generation and minimization of risks associated with pesticides waste?

The Strategic Plan of the MoE of the Republic of Kazakhstan for 2010-2014 (hereinafter – Strategic Plan) approved by Government of the Republic of Kazakhstan dated February 25, 2010 No.1270. One of the objectives of the Strategic Plan is "to continue to conduct inventory of TMFs) to identify active stocks and address utilization multimillion overburden dumps and tailings. Another problem for the country is to address persistent organic pollutants (hereinafter – POPs), obsolete **pesticides** and contaminated areas."

Is there a Hazardous Waste Classification System in the country? Are the pesticides waste included in such



classification?

Waste classifier is approved by the Order of the MoE of the Republic of Kazakhstan dated May 31, 2007 No.169-p. – defines the classification code of obsolete pesticides.

Any other national legislation and regulatory measures adopted by Government in order to implement and enforce the provisions of the Basel Convention?

1) State Services:

- «License, renewal, issuance of duplicate license to operate on the use of pesticides (insecticides) and aerosol fumigant ways»,
- «License, renewal, issuance of duplicate license to operate on production (formulation) of pesticides (insecticides)»
- «Issuance of license renewal, issuance of duplicate license to operate on the implementation of pesticides (insecticides)»

Local executive bodies – issuing licenses, renewal, issuance of duplicate license to operate on the use of pesticides (insecticides) and aerosol fumigant methods (hereinafter – License) on paper or in electronic form (on a portal www.elicense.kz), signed by the authorized person EDS local executive body or a reasoned response to the refusal to provide public services.

Web-page www.elicense.kz – issuance of licenses, renewal, issuance of duplicate licenses in the form of an electronic document signed with electronic signature of the authorized person of the local executive body or a reasoned response to the refusal to provide public services in the form of an electronic document.

Term of the public service from the time that the recipient of public services to the local executive body or a portal is to issue licenses – no later than fifteen working days. For the provision of public services (license, renewal, issuance of duplicate license) the recipient of the public service in the budget will cover the license fee for the right to engage in certain activities in the amount of 10 monthly calculation indices cash or non-cash.

In the case of an electronic request for a license through the web-page, payment may be made through the payment gateway of «electronic government».

2) The public service «State registration of pesticides (insecticides)»: Result of public services is the issue of the registration certificate on paper (hereinafter – license), or written refusal of state registration of the pesticide (pesticide).

Public service is available in the following terms:

The duration of the public service from the date of filing of the necessary documents by the consumer – not more than three years; conducting pesticide registration tests (pesticide) – not more than two years; conducting production tests (pesticide) – one year; agreement prepared for the state registration of the pesticide (pesticide) materials authorized state bodies in the field of environment and health – 30 working days. Public service is provided free of charge.

Information regarding public services available on the official website of the Ministry of Agriculture, as well as on e-government RK www.e-gov.kz.

Stages of the public service:

- 1) an employee of the Committee shall receive, review, setting to control the received documents. Registered duly executed documents handed to the chairman of the Committee and subsequently to the Executive;
- 2) Executive Committee of the receipt of the documents the consumer checks them for completeness and correctness of filling includes the pesticides (toxic chemicals) in plans for registration and testing facilities, as well as a work plan for toxicological- hygienic evaluation of the pesticide (pesticide), approved by the Chairman of the Committee, which then are sent to the executing agencies and consumers to conclude contracts for carrying out these tests. Materials for pesticides (pesticides) that are in research organizations as well as government agencies involved in the examination shall not be disclosed;
- 3) after a pesticide registration tests (pesticide), the organization shall submit to the Committee a report on the results of the tests;
- 4) after production tests of the pesticide (pesticide), the organization shall submit to the Committee a report on the results of tests carried out and the act of production check pesticide (pesticide) in accordance with Annex 3 of the Rules;



Chapter II Specific Laws and Regulations that govern waste management	<p>5) reports on the results of registration and production tests (pesticide), as well as reports on work on toxicological-hygienic evaluation of the pesticide (pesticide) can be verified by the Executive Committee;</p> <p>6) discussed and prepared for the state registration of the pesticide (pesticide) materials are sent for approval to the public authorities in the field of environmental protection and health;</p> <p>7) after the receipt of the registration materials to harmonize pesticide (pesticides) are approved by the Committee, the Executive Committee then issued a certificate on a specially made form by assigning the state registration number and the date of state registration of the pesticide (pesticide), which are recorded in a special register</p> <p>8) after assigning the state registration number certificate signed by the Chairman of the Committee, the seal of the Committee and shall be issued to the consumer.</p> <p>Registered pesticides (pesticides) are made in the "List of pesticides (insecticides), approved for use in the Republic of Kazakhstan".</p> <p>In case of denial of public service Executive Committee prepared a reasoned refusal, signed by the Chairperson of the Committee and shall be issued to the consumer</p>		
	Sector	EU legislation	Kazakh legislation
	General waste management	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>	Chapter 42 – Environmental requirements for the treatment of waste production and consumption of Environmental Code of the Republic of Kazakhstan
	Import/Export	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>	1) "On Approval of Technical Regulations" Safety requirements for pesticides (pesticides) "" Government of the Republic of Kazakhstan dated May 29, 2008 No.515 – defines the necessary conditions for handling pesticides (pesticides) on the market requirements for their importation and exportation, manufacture, sale, storage, transport, use and destruction, as well as container from under them. 2) "On some issues of licensing of exports and imports," Government of the Republic of Kazakhstan dated June 12, 2008 No.578
	Landfill of waste	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>	1) "Lists of wastes in landfills to accommodate different classes" ratified. Order of the Minister of Environment of the Republic of Kazakhstan dated August 2, 2007 No.244-p – bans the deployment of pesticides in landfills. 2) Resolution of the Government of the Republic of Kazakhstan dated March 6, 2012 No.291 «On approval of the Sanitary Rules» Sanitary requirements for the collection, use, application, processing, transportation, storage and disposal of production and consumption»
	Incineration	Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of	Resolution of the Government of the Republic of Kazakhstan dated March 6, 2012 No.291 «On approval of the Sanitary Rules» Sanitary

		waste, <i>OJ L 332, 28.12.2000, p. 91–111.</i>	requirements for the collection, use, application, processing, transportation, storage and disposal of production and consumption»
	<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, <i>OJ L 190, 12.7.2006, p. 1–98.</i>	GOST 14189-81 Pesticides. Acceptance rules, sampling methods, packaging, labeling, transportation and storage
Chapter III Institution(s) involved in waste management (focus on pesticides)	<p><i>Name/s of the responsible institution/s in this respect? What normative act provide this? When did it begin to work/function? Who is responsible for identifying whether a waste is hazardous or not?</i></p> <p>1) Ministry of Agriculture of the Republic of Kazakhstan – according to the State about the Ministry of Agriculture of the Republic of Kazakhstan »approved by Resolution of the Government of the Republic of Kazakhstan from April 6, 2005 No.310 has a following functions in a pesticides area:</p> <ul style="list-style-type: none"> • the prevention and avoidance of harmful effects of pesticides (insecticides) on human health, agricultural pollution, the environment during the phytosanitary measures, • the development of technical regulations in the field of pesticide (pesticide), • the development of qualification requirements for the following sub-activities by: manufacturing (formulation) of pesticides (insecticides), implementation of pesticides (insecticides) pesticides (pesticides) and aerosol fumigant ways, • the development of rules for registration, testing and production of state registration of pesticides (insecticides), • state registration of pesticides (insecticides) and issuing registration certificates for the right to the use of pesticides (insecticides) on the territory of the Republic of Kazakhstan, • the development, approval and maintenance of a list of pesticides (insecticides) etc. <p>2) Ministry of Energy of the Republic of Kazakhstan – according to the State about the Ministry of Energy of Kazakhstan approved by the Government of the Republic of Kazakhstan dated September 19, 2014 No.994 this Ministry performs the functions of the national authority for the implementation of international treaties of the Republic of Kazakhstan on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; performs state management of hazardous chemicals, including persistent organic pollutants, as part of the obligations of international treaties of the Republic of Kazakhstan on Persistent Organic Pollutants on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in international trade.</p> <p>According to Environmental Code approves the Waste classifier, the form of report on hazardous waste. The Waste classifier is designed to determine the level of danger and coding wastes. In the absence of the type of waste in the Waste classifier and coding will be justified according to each case and agreed with the competent authority in the field of environmental protection.</p> <p>3) Ministry of Healthcare and Social Development of the Republic of Kazakhstan – according to the State of the Republic of Kazakhstan Government dated October 28, 2004 No.1117 this Ministry provides the maintenance of a register of potentially hazardous chemical and biological substances prohibited for use in the Republic of Kazakhstan; person authorized to prohibit or suspend the use of baby foods, nutritional and dietary supplements, genetically modified materials and articles in contact with water and food, chemicals, certain types of products and substances that have harmful effects on human health, prohibit the manufacture, use and sale of new raw materials, products, chemicals, process equipment, mechanisms, processes, tools, if found unsafe for life and health.</p> <p><i>Indicate the financial assistance in this respect (foreign or strictly national/internal)</i></p> <p>Financial assistance in the field of waste management is provided from the State budget at the request of the competent authority and only on issues of concern. Currently money is allocated only to deal with issues related to abandoned waste.</p> <p>Sources of funding of Plant Protection</p> <p>1. Activities implemented by the budget include:</p>		

- 1) conducting pest monitoring to identify locations Check harmful and dangerous pests;
 - 2) purchasing of pesticides (insecticides) for chemical treatments against particularly dangerous pests, as well as the formation, storage and updating of the stock of pesticides (insecticides);
 - 3) customs declaration, storage and delivery of pesticides (insecticides) to places of work;
 - 4) conducting decontamination of pesticides (insecticides), purchased at the expense of budget funds;
 - 5) conducting applied research in the field of plant protection;
 - 6) maintenance, construction and repair of special storage (burial).
2. At the expense of owners of facilities subject to state phytosanitary control in the procedure established by the authorized body, the following phytosanitary measures:
- 1) disposal of pesticides (insecticides), purchased at their own expense, as prescribed by state inspectors on plant protection;
 - 2) conducting phytosanitary measures against harmful organisms;
 - 3) analysis and assessment of agricultural products for the maintenance of pesticide residues (pesticides).
3. registration, production tests (pesticides) are carried out at the expense of producers of pesticides (insecticides) in the manner prescribed by the Government of the Republic of Kazakhstan.

Pesticides waste management planning

Who is responsible for developing and implementing pesticides waste management plans?

JSC "Zhasyl damu" was created by converting the Republican State Enterprise on the right of business "Kazakh Research Institute of Ecology and Climate" of the Ministry of Energy of the Republic of Kazakhstan. Based on the objectives, the following tasks: ownerless waste inventory and setting the balance of the state (including mercury wastes, PCBs, pesticides, etc.), the development of comprehensive measures and projects for the destruction and recycling economically unattractive types of waste.

MoE takes control on obsolete pesticide waste generated from the Soviet Union, passed to the State ownership under the court order. In its turn, MoE charges the departmental unit (JSC "Zhasyl Damu") with conducting the activity related to the passed waste. JSC "Zhasyl Damu" prepares a feasibility study and a budget request. MoE files an application and then defends the budget at MEc. If the decision is positive, the budget is allocated to a competent authority (MoE).

Are there certain programs or activities of involving the owners in the collection and transportation of pesticides wastes?

According to Article 283 EC RK, individuals and legal entities whose activities have generated production and consumption waste, are its owners and have the responsibility for safe waste management since the moment of its production unless otherwise provided by the legislation of the Republic of Kazakhstan or the contract, determining the conditions for waste management

Section III: Analysis of existing national waste management legislation

<p>Theme 1 Scope</p>	<p><i>What is covered by the national law in relation to waste management, regarding pesticides waste?</i> or <i>What is covered by the national law in relation to chemical management, regarding pesticides waste?</i></p> <p>According to the Environmental Code of the Republic of Kazakhstan, pesticide waste is hazardous waste. A level of danger is determined in accordance with the Classifier of Waste approved by the Order of the MoE of the Republic of Kazakhstan dated May 31, 2007 No.169-p.</p> <p>The Environmental Code of the Republic of Kazakhstan on the treatment of hazardous waste (including obsolete pesticides) covers following requirements: integration of environmental requirements in bankruptcy, reorganization and liquidation of legal entity – a nature exercising environmentally hazardous economic and other activities, requirements for the management of hazardous waste ownerless entering the Republican property by court order, the requirements for the classification of hazardous waste, environmental requirements when dealing with hazardous waste.</p> <p>At the same point the law of the Republic of Kazakhstan "On Plant Protection" also covers: requirements for storage, transport and use of pesticides (insecticides), for the disposal of pesticides (insecticides), to stocks of pesticides (insecticides), Responsibilities of individuals and legal entities whose activities are associated with the objects of the state phytosanitary control, including pesticide requirements for state registration of pesticides (insecticides), the problem of the state pest control, control requirements for storage, transportation and use of pesticides (insecticides), Verify the registration and production testing of pesticides (insecticides), control over disposal of pesticides (insecticides) and special state storage (burial), General requirements for safety in the field of pesticide (pesticide), requirements for packaging and containers of pesticides (insecticides), safety requirements for the storage of pesticides (insecticides), safety Requirements for transport of pesticides (insecticides), the requirements for sources funding for plant protection</p>
<p>Theme 2 Definitions</p>	<p><i>Is there a definition of hazardous waste, especially of pesticides waste in the national legislation?</i></p> <p><u>The Environmental Code of the Republic of Kazakhstan:</u> <u>hazardous waste</u> – waste which contain harmful chemicals that are hazardous characteristics (toxic, explosive, radioactive, fire hazard, high reactivity) and may be of immediate or potential danger to the environment and human health alone or when in contact with other substances; <u>hazardous chemicals</u> – substances with characteristics that may have a direct or potential harmful effects on human health and the environment.</p> <p><i>Does the legislation provide any criteria / procedure when pesticides become waste pesticides?</i></p> <p>According to the EC RK, the determining of the level of danger and the coding of waste should be produced on the basis of waste classifier. According to Article 287 EC RK, pesticides refer to hazardous waste. Referring the waste to certain encoding is accomplished by the user of natural resources directly or with individuals and (or) legal entities that have a license for performing work and rendering of services in the field of the environment protection.</p> <p>Moreover, individuals and legal entities compose and approve the passport of hazardous waste since in their economic activities process hazardous waste is generated. The passport of hazardous waste is subject to registration at a competent authority in the field of environmental protection within 3 months from the moment of production of waste. As additional information improving the completeness and accuracy of the data included in the mandatory sections becomes available, the passport of hazardous waste is subject to update and re-registration.</p> <p>The chemical and component composition of the waste is indicated on the basis of analysis' results accomplished by the accredited laboratory. Data on the component composition of the original good (products) for the waste represented by goods (products), which lost their consumer characteristics, are indicated in accordance with the technical specifications. Technological process' name which resulted in waste production, or the process' name, indicated with the original good's (products') name, in which the good (products) have</p>

	lost their consumer characteristics, are specified in the passport if hazardous waste
Theme 3 Administrative and institutional structure	<p><i>Is there an institutional infrastructure on the national level on pesticides wastes? Name the responsible institution/s in this respect? When did it begin to work/function? Indicate the financial assistance in this respect (foreign or strictly national/internal)?</i></p> <p>JSC "Zhasyl damu" was created in 2012 by converting the Republican State Enterprise on the right of business "Kazakh Research Institute of Ecology and Climate" of the Ministry of Energy of the Republic of Kazakhstan. Based on the objectives, the following tasks: ownerless waste inventory and setting the balance of the state (including mercury wastes, PCBs, obsolete pesticides, etc.), the development of comprehensive measures and projects for the destruction and recycling economically unattractive types of waste. JSC "Zhasyl damu" has the financial assistance from the Government budget</p>
Theme 4 Licensing	<p><i>Are there permits / licensing for waste (pesticides waste) management activities required? Do the permits / licensing include activities as using, stocking, disposal of pesticides? Which authority/authorities are responsible for issuing the license for the disposal of pesticides wastes?</i></p> <p>There are no requirements for having a special permit/license for activities related to hazardous waste management on the territory of the Republic of Kazakhstan; however, a permit is required for emissions into the environment in which regulations on waste disposal are indicated, and also for transportation of hazardous waste.</p> <p>Permits themselves don't contain detailed data on the types of waste that are covered by the above permits. MoE issues a permit for emissions into the environment.</p> <p>The Ministry of transportation and communication issues a license for transportation of hazardous materials.</p> <p><i>Does the legislation provide explanations what is mean the pesticides activities?</i></p> <p>According to Article 1 of the Kazakh Law "On protection of plants": pesticides (insecticides) – chemical, biological and other substances which are used against harmful and highly dangerous pests, as well as for pre-harvest drying, removal of leaves and plant growth regulation; disposal of pesticides (insecticides) – measures aimed at recycling, destruction of banned or deteriorated pesticides (chemicals), as well as their containers in accordance with the laws of the Republic of Kazakhstan.</p> <p><i>Are there provisions for disposal facility licensing? Are there any specific requirements?</i></p> <p>Application of the technologies, machinery, excluding vehicles and equipment, is carried out in the presence of a positive conclusion of the state ecological expertise on documentation, which justifies the use of such technologies, machinery and equipment, with materials of assessment of the impact on the environment in the Republic of Kazakhstan</p>
Theme 5 Transboundary movement, import/export	<p><i>What are the Transboundary Movement Reduction Measures taken at the national level so far?</i></p> <p>A competent authority in the field of environmental protection issues a conclusion for the transboundary movement of waste on the territory of the Republic of Kazakhstan, accomplishes state management of hazardous chemicals, including persistent organic pollutants within the frameworks of the international treaties' obligations of the Republic of Kazakhstan on Persistent Organic Pollutants, on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and on the Prior Informed consent Procedure for Certain hazardous Chemicals and pesticides in International Trade.</p> <p><i>What is the procedure of notification for the Transboundary Movement?</i></p> <p>3 levels of hazardous waste are established for the purposes of transportation, disposal, storage and burial in accordance with the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal:</p> <ol style="list-style-type: none"> 1) Green – G-index; 2) Amber – A-index; 3) Red – R-index. <p>The owner of hazardous waste has to ensure labelling of packages of hazardous waste, indicating hazardous characteristics. When sending such waste to other people for a certain period, the owner of the waste has to</p>

inform them in writing on the hazardous characteristics of the waste and the precautions when handling them. It is not allowed to mix hazardous waste with non-hazardous one as well as various kinds of hazardous waste during the process of production, transportation and storage, excluding cases of using non-hazardous waste for bedding, compaction of waste burial.

Civil liability of individuals and (or) legal persons who are the owners of hazardous waste or accomplishing treatment of such wastes, is subject to obligatory environmental insurance in accordance with the Law of the Republic of Kazakhstan "On obligatory ecological insurance".

According to Article 294 of the EC RK, production of hazardous wastes and its transportation should be kept to a minimum.

Transportation of hazardous waste can be done considering the following conditions:

- 1) appropriate packaging and labelling of hazardous waste for transportation purposes;
- 2) presence of the vehicles specially equipped and having special marks;
- 3) presence of the passport and documentation on hazardous waste for transportation and transfer of hazardous waste, indicating the number of transported hazardous waste, purpose and its destination;
- 4) compliance with the requirements for safe transportation of hazardous waste as well as un-/loading operations.

Transport organization or individual who owns the vehicle is accountable for safe handling waste from the moment of its shipment and acceptance by an individual or legal entity engaged in the transportation of waste to the time of the vehicle's unloading at its destination.

According to Article 295 EC RK, groups of waste are considered to be hazardous for the purposes of transboundary movement of wastes, in accordance with Annex 1 of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

Transboundary movement of waste on the territory of the Republic of Kazakhstan is carried out on the basis of the conclusion of the competent authority in the field of environmental protection.

In order to accomplish transboundary movement of hazardous waste, users of natural resources are required to provide information to the states concerned on a proposed transboundary movement of wastes, indicating the effects of the proposed movement on human health and the environment.

In case of transboundary movement of hazardous waste, it must be packaged, labeled and transported in accordance with generally accepted international rules and standards in the field of packaging, labeling and transportation.

Name the international standards (ISO) adopted at national level.

Transit of waste on the territory of the Republic of Kazakhstan is carried out in accordance with the requirements of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

Who is responsible for notifying the transboundary shipment of hazardous (pesticides) waste destined for disposal?

In what cases is the authorization refused? How is this reflected in the national legislation?

In case of transboundary movements of radioactive materials the user of natural resources is obliged to take measures of ensuring the movement in compliance with international law, considering:

- 1) the user of natural resources is obliged to take measures to ensure the movement in accordance with the permit and prior notification, having the consent of the State of destination;
- 2) transboundary movement through States of transit has to be carried out, providing accomplishing of those international obligations which correspond to specific modes of used transport;
- 3) it is not allowed to ship spent fuel or radioactive waste for storage or disposal to destination which is 60 degrees south of the south latitude.

Are there any restrictions on import, export and transit of hazardous (pesticides) wastes? Any specific national legal provisions clearly prohibiting export of pesticides wastes?

It is prohibited to export hazardous waste to countries that are parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and the developing countries which banned the import of hazardous wastes within the framework of their legislation, or if there is a reason to believe that the waste will not be carried out in an environmentally sound way, as well as to the areas that are

	60 degrees south of the south latitude
Theme 6 Economic Initiatives	<p><i>Does the legislation on waste management and chemicals provide the following principles: “polluter pay”, Waste Prevention Principle, Substitution Principle and Elimination of Toxic Substances, Principle of Internalizing Costs?</i></p> <p>According to Article 288 EC RK individuals and legal persons who generate waste during the process of their economic activities, are required to provide measures of safe handling in order to comply with environmental and sanitary-epidemiological requirements and implement measures for their disposal, decontamination and safe disposal.</p> <p>In the cases provided in this Code, the owner of the waste is required to develop a program of waste management in order to gradually reduce its volumes.</p> <p>According to Article 293 of the EC RK individuals and legal persons who generate waste during the process of their economic activities have to implement actions aimed at stopping or reducing production of waste and (or) reducing risk. The activities of individuals and legal entities during the process of which hazardous waste is produced, are restricted or prohibited considering the absence of ability to ensure hazardous waste management which is environmentally sound and safe for human health.</p> <p><i>Does the legislation provide any economic facilities/requests for the minimization of hazardous waste, especially the pesticides waste?</i></p> <p>According to Chapter 71 of the Tax Code of the Republic of Kazakhstan, a fee for emissions into the environment (hereinafter – Fee) is charged for emissions into the environment in the order of a special land use. Special use of natural resources is carried out on the basis of an environmental permit (hereinafter – Permit) issued by the competent authority in the sphere of environmental protection or by the local executive bodies of oblasts, cities and the capital (hereinafter – Authority issuing a Permit). Waste disposal is the Object of taxation. Emissions into the environment, which don't possess a duly issued permit document are considered to be emissions into the environment above the limits of emissions into the environment</p>
Theme 7 Transport	<p><i>Do there exist regulations regarding the transportation of hazardous (pesticides) wastes (transportation time, place, route, transported quantity, etc.)?</i></p> <p>According to the Environmental Code of Kazakhstan, transportation of radioactive materials and waste is carried out in compliance with the terms provided in the legislation of the Republic of Kazakhstan and international treaties ratified by the Republic of Kazakhstan. Terms of the transport of radioactive materials and waste must provide the rights, duties and responsibilities of the shipper, carrier and consignee, the security measures of physical protection system, system of coordinated measures to prevent incidents and accidents, requirements for packaging, labelling and transport, action for localization of the potential accidents' consequences.</p> <p>3 levels of hazardous waste are established for the purposes of transportation, disposal, storage and burial in accordance with the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal:</p> <ol style="list-style-type: none"> 1) Green – G-index; 2) Amber – A-index; 3) Red – R-index. <p>The passport of hazardous waste is composed and approved by individuals and legal entities during the process of economic activities that result in generating hazardous waste.</p> <p>The passport's form of hazardous waste is approved by the competent authority in the field of environmental protection and filled in separately for each type of waste.</p> <p>The passport of hazardous waste is subject to registration in the competent authority in the field of environmental protection within three months from the moment of waste production.</p> <p>It is obligatory to provide copies of the passports of hazardous waste to an individual or entity that is carrying out the transportation of this set or a part of it, as well as to each consignee of the waste set (or a part of it). During treatment of the waste set, including mixing it with other materials, the consignee has to draw and register a new passport hazardous waste for this set (or a part of it) in the case of transportation outside of the company.</p>

	<p><i>Does the legislation provide the minimum guidelines regarding transportation of waste pesticides?</i></p> <p>According to Article 294 of the EC RK, production of hazardous waste and its transportation should be kept to a minimum.</p> <p>Transportation of hazardous waste can be done considering the following conditions:</p> <ol style="list-style-type: none"> 1) appropriate packaging and labelling of hazardous waste for transportation purposes; 2) presence of the vehicles which are specially equipped and have special marks; 3) presence of the passport and documentation on hazardous waste for transportation and transfer of hazardous waste, indicating the number of transported hazardous waste, purpose and its destination; 4) compliance with the requirements for safe transportation of hazardous waste as well as un-/loading operations. <p>It is not allowed to mix hazardous waste with non-hazardous one as well as various kinds of hazardous waste during the process of production, transportation and storage, except for cases of using non-hazardous waste for bedding, compaction of waste burial.</p> <p>Companies that carry out collection, recycling, transportation and disposal of hazardous waste, develop plans of action in alert and emergency situations.</p> <p>Civil liability of individuals and (or) legal persons who are the owners of hazardous waste or accomplish treatment of such waste, is subject to obligatory environmental insurance in accordance with the Law of the Republic of Kazakhstan "On obligatory ecological insurance".</p> <p><i>Have there been approved any duties in respect of carriers?</i></p> <p>Transport organization or individual who owns the vehicle is accountable for safe handling waste from the moment of its shipment and acceptance by an individual or legal entity engaged in the transportation of waste to the time of the vehicle's unloading at its destination.</p> <p>The owner of hazardous waste shall provide labelling of packages of hazardous waste, indicating hazardous characteristics. When sending such waste to other people for a specified period the owner of the waste shall inform them in writing of the hazardous characteristics of the waste and the precautions when handling them.</p> <p><i>Are there special units, that take care of the transportation of the hazardous (pesticides) wastes or this task is fulfilled by simple legal persons that collect the solid wastes in villages/towns and have concluded contracts with local authorities?</i></p> <p>Landfills containing long-term hazardous waste have their own vehicles. Landfills provide services of waste export and disposal on a paid basis according to the request, if the owner of the waste has appropriate documents</p>
Theme 8 Labelling requirements	<p><i>Does the legislation provide requests for package and labelling of hazardous waste, including (pesticides waste)?</i></p> <p>According to the EC RK, the owner of hazardous waste has to ensure labelling of packages containing hazardous waste, indicating hazardous characteristics.</p> <p>GOST 14189-81 Pesticides. Acceptance rules, sampling methods, packaging, labelling, transportation and storage.</p> <p><i>If yes, does the requests for package and labelling of hazardous waste are according with the international and European standards in force?</i></p> <p>According to GOST, in case of air transportation of pesticides, their packaging must meet the requirements of the International Civil Aviation Organization (ICAO) as outlined in the Technical Instructions for the Safe Transportation of Dangerous Goods by Air.</p> <p>Moreover, according to the EC RK, in case of transboundary movements of radioactive materials the user of natural resources is obliged to take measures of ensuring the movement in compliance with the international law</p>
Theme 9 Packaging and containers	<p><i>Does legislation provide any requests regarding materials, which can be used for packaging or re-packaging of pesticides waste?</i></p> <ol style="list-style-type: none"> 1) "On Approval of Technical Regulations" Safety requirements for pesticides (pesticides) "" Government of

	<p>the Republic of Kazakhstan from May 29, 2008 No.515 – defines the necessary conditions for handling pesticides (pesticides) on the market requirements for their importation and exportation, manufacture, sale, storage, transport, use and destruction, as well as container from under them.</p> <p>2) Order of the Minister of Agriculture of the Republic of Kazakhstan from July 6, 2004 No.351. On Approving the Rules of decontamination of pesticides (insecticides)</p> <p><i>Is the requirement of proper management of containers that contain pesticides waste in order to minimize the potential for release, and to ensure that the wastes are packaged in a manner consistent with the requirements for transportation stipulated in the legislation?</i></p> <p>Packaging and containers for pesticides (chemicals) ensure safe storage, transportation and sale of products. Materials used for packing and containers are specially adapted for the protection of humans, the environment from hazardous characteristics of pesticides (insecticides) and resistant to damaging or other harmful effects of the constituents of pesticides (toxic chemicals) and interacting with them, which while reacting may cause: fire and (or) emission of considerable amount of heat; emission of flammable, toxic or inflammable gases; formation of other reactive and hazardous substances.</p> <p>Pesticides (insecticides), which pertain to Class of Hazard I are unusable for other purposes and should be stored in containers that ensure integrity and exclude a possibility of contamination of the environment by pesticides (toxic chemicals) during storage and subsequent transportation to the sites for decontamination (disposal, destruction).</p> <p>Formulations, which pertain to Class of Hazard II, can be packed in a multilayer container made from polymeric packaging materials with special inserts (depending on the specification of a pesticide (an insecticide)).</p> <p>Do not bury banned and obsolete pesticides (insecticides) in the same bin since they form more toxic, flammable substances, or flatulence occurs when they are interacting. Package for banned and obsolete pesticides (insecticides) must be solid and sealed) since moisture increases their hazard due to decomposition and emission of toxic or inflammable gases. Burial of large volumes of banned and obsolete pesticides (insecticides) (cyanplav, calcium cyanamide, zinc phosphide, cyneb, perazin, homecyn) should be carried out in the hoppers and pits isolated from the general volume of banned and obsolete pesticides (pesticides) considering their chemical groups</p>
Theme 10 Emergency procedures	<p><i>Does legislation provide any requests regarding the spill response and emergency procedures?</i></p> <p>According to Article 321 of the EC RK, perpetrators of environmental offenses are obliged to compensate damage caused by them in accordance with the EC RK and other legislative acts of the Republic of Kazakhstan. The damage to the environment, health, property of individuals and legal entities, the state is subject to compensation which was caused as a result of:</p> <ol style="list-style-type: none"> 1) destruction or damage to natural resources; 2) unauthorized and irrational use of natural resources; 3) unauthorized environmental pollution including emergency and uncoordinated burst release and discharges, allocation of production and consumption; 4) excess environmental pollution. <p>Compensation for damage to human health, property of individuals and legal entities or state, committed by perpetrators of environmental offenses is carried out voluntarily or by court order in accordance with the laws of the Republic of Kazakhstan. Damage shall be reimbursed in full considering the extent of disability of the victim, the costs of his/her treatment and recovery, the cost of patient care, and other expenses and losses. Compensation for damage caused to the environment as a result of violations of the environmental legislation of the Republic of Kazakhstan, is voluntary or by court order on the basis of the economic assessment of the damage, the procedure of which is determined in accordance with this Code</p>
Theme 11 Disposal obligations	<p><i>Does legislation provide any requests regarding specific obligations in relation to disposal?</i></p> <p>According to Article 299 of the EC RK each waste polygons has to be assigned to one of the following classes:</p> <ol style="list-style-type: none"> 1) Class 1 – a polygon for hazardous wastes; 2) Class 2 – a polygon for non- hazardous wastes; 3) Class 3 – a polygon solid household rubbish. <p>Lists of waste to be disposed at polygons of different classes are identified by the authorized body in the field of</p>

	<p>environmental protection.</p> <p><i>Does legislation provide any requests regarding the disposal procedure?</i></p> <p>According to Article 300 of the EC RK, hazardous waste is subject to neutralization, stabilization and other ways of exposure, before placing at the polygon thus reducing the hazardous characteristics of wastes.</p> <p>Disposal of hazardous waste at polygons for non-hazardous waste is prohibited.</p> <p>Criteria for acceptance of waste at the polygon of a certain class are identified in the following way:</p> <ol style="list-style-type: none"> 1) Protection of the environment (in particular ground and surface water) and human health; 2) provision of waste stabilization processes within the polygon's boundaries; 3) quality of composition of received waste; 4) requirements or limitations on the number of received waste and the ability of their organic components to biodegrade; 5) limitations on the number of potentially hazardous components in accordance with the protection criteria; 6) ecotoxic characteristics of waste and filtrate. <p>It is prohibited to store waste in unauthorized sites and to create spontaneous landfills.</p> <p>Each polygon should have a monitoring system of air emissions (landfill gas), filtrate and waste water generated in the deposited waste in order to prevent their negative impact on the environment.</p> <p>The quantity and hazardous characteristics of waste destined for disposal at the landfill should be reduced.</p> <p>The owner of the landfill must take measures to reduce the production of methane at the landfill by reducing the volume of biodegradable waste's disposal and to implement control and utilization systems of landfill gas.</p> <p>The landfill owner should implement a unified admission procedure based on the classification of waste in order to prevent environmental pollution.</p> <p>Polygons' activities are carried out basing on the plan to bring the site into compliance with environmental requirements within the timeframe agreed with the competent authority in the field of environmental protection.</p> <p>The owner of the landfill creates a liquidation fund for activities to land reclamation and monitoring the impact on the environment after the landfill's closure.</p> <p>It is prohibited to use a polygon without a liquidation fund.</p> <p>The owner of the landfill establishes a procedure of acceptance and classification of waste received for disposal, which has to be agreed with the competent authority in the field of environmental protection.</p> <p>Control over compliance with the requirements for disposal of waste at landfills and landfills' content is carried out by the authorized body in the field of environmental protection.</p> <p><i>How does the disposal of pesticides waste take place? Is it a uniform procedure or it depends on each case? What the legal act provide such request?</i></p> <p>According to the Article 301 of the EC RK, it is prohibited to accept disposal of pesticides at polygons</p>
<p>Theme 12 Incineration</p>	<p><i>Is incineration allowed according to the national legislation? What are the categories of waste that can be incinerated?</i></p> <p>The term "waste incineration" is not used in the Environmental Code of Kazakhstan but there are norms on incineration of certain types of waste in some regulations.</p> <p>For example, Resolution of the Government of the Republic of Kazakhstan from March 6, 2012 No.291 «On approval of the Sanitary Rules» Sanitary requirements for the collection, use, application, processing, transportation, storage and disposal of production and consumption».</p> <p><i>Who is responsible for issuing a permit for incineration? Based on what requirements?</i></p> <p>It is obligatory to have a permit for emissions into the environment as a part of which specifies standards for waste disposal in order to be engaged in activities on the incineration of hazardous waste on the territory of the Republic of Kazakhstan. MoE issues such permits for emissions into the environment.</p> <p>Kilns are used in case of disposal of waste products, which have to be incinerated at a temperature of 1000 – 1200 degrees Celsius (hereinafter – °C). It is not allowed to take to the landfill waste production, for which there are effective methods to extract heavy metals and other substances, radioactive waste, petroleum products</p>

	<p>which are subject to recovery.</p> <p>Medical waste incineration products or ash are disposed as waste of Class A.</p> <p>It is prohibited to burn medical waste using non-specialized equipment on the territory of the sites and settlements out of non-specialist settings.</p> <p>Thermal neutralization (burning) of medical waste is carried out by thermal exposure to medical waste at a temperature not below than 800-1000 °C.</p> <p><i>Is there detailed description of distribution and disposal of the waste, including waste composition that helps determine the percentage of waste suitable for incineration?</i></p> <p>Due to the fact that there is no equipment for incineration of pesticides and other hazardous waste on the territory of Kazakhstan, legal acts haven't been developed on this issue</p>
<p>Theme 13 Recording, monitoring, and reporting</p>	<p>Recording</p> <p><i>Are there requirements that on every site where tipping of pesticides waste take place that waste is recorded and identified?</i></p> <p>According to Article 299 of the EC RK, lists of waste to be disposed at polygons of different classes are identified by the authorized body in the field of environmental protection.</p> <p>Article 300 EC RK describes the detailed requirements on the content of various classes of landfills.</p> <p>Thus, each polygon should have a monitoring system of air emissions (landfill gas), filtrate and waste water generated in the deposited waste in order to prevent their negative impact on the environment.</p> <p>The owner of the landfill should implement a unified admission procedure based on the waste classification to prevent environmental pollution.</p> <p>Polygons' activities are carried out basing on the plan to bring the site into compliance with environmental requirements within the timeframe agreed with the competent authority in the field of environmental protection.</p> <p>According to Article 301 of the EC RK, it is prohibited to accept disposal of pesticides at polygons.</p> <p>According to Article 303 of the EC RK, a polygon is assigned with a unique registration number, which is included in the state waste register of the Republic of Kazakhstan. The owner of the landfill should develop a workflow system designed to maintain a record of waste received to the landfill.</p> <p><i>Who has the responsibility of access to Material Safety Data Sheets (MSDS)?</i></p> <p>According to Article 304 of the EC RK, owners of waste who deliver the waste to the landfill are obliged to provide reliable information on their qualitative and quantitative characteristics to the landfill's owner, confirming that waste belongs to a particular type and hazardous waste and there is a copy of the passport of hazardous waste.</p> <p>The owner of the landfill is always obliged to provide written acknowledgment of receipt of each waste batch received at the site, and to ensure maintenance of this documentation for five years.</p> <p>Monitoring</p> <p><i>Provide general background of how does the monitoring take place for various hazardous wastes, according with national legislation.</i></p> <p>Control, monitoring, and (or) analyses should be carried out by accredited laboratories.</p> <p>An analysis of the filtrate and surface water should be taken at representative points. Selection and measurement of the filtrate's volume and composition have to be implemented separately for each area where the filtrate is formed. Gas monitoring is carried out for each section of the landfill for solid waste in accordance with the procedure approved by the authorized body in the field of environmental protection.</p> <p>The frequency of implementation of sampling and analysis is proved in a monitoring program attached to the permit for the emission to the environment.</p> <p>The parameters which will be measured and the substance which will be analyzed are reviewed depending on the composition of the placed waste.</p> <p>The parameters which will be analyzed in the samples taken from ground water should be determined by the expected composition of the filtrate and the ground water quality at this site. While choosing parameters for the analytical account, speed and direction of groundwater flow should be defined. Parameters may include</p>

indicators in order to ensure early detection of changes in water quality.

Who is responsible for Hazardous waste monitoring, including the pesticides waste?

The owner of the landfill should inform the authorized body in the field of environmental protection on adverse effects on the environment identified during control and monitoring as well as to coordinate with the competent authority in the field of environmental nature and timing of the measures to be taken.

Does the national legislation provide requests of the periodical reports system on the national level regarding the hazardous wastes, including pesticides waste? What are the responsible institutions in this respect?

According to Article 305 of the EC RK, the owner of the landfill submits a report on the monitoring of the environmental impact in the authorized body in the field of environmental protection annually.

Do the non-state actors have a free access to the information on pesticides wastes, which is stocked by the relevant public authorities? What is the situation with access to information to the general public in case if pesticides waste is managed by private entity?

Unified system of registers of environmental protection of Kazakhstan (hereinafter – USR) is established and maintained as a cross-sector information system, which integrates all types of state registers of environmental protection of the Republic of Kazakhstan in order to provide a single national integrated list and assessment of natural and economic potential of the Republic of Kazakhstan.

USR is a systematic set of information about the quantity and quality of the environment including natural resources, historical pollution, waste, in the manner prescribed by the Environmental Code and other legislative acts of the Republic of Kazakhstan.

USR objects are components of the environment: natural resources, registry of users of natural resources, historical pollution, radioactive waste, greenhouse gases, waste production and consumption, taking into account sources of pollution of the environment and their impact on the environment.

The work was not carried out due to lack of funding the work.

Does the national legislation provide requests regarding monitoring of the construction and demolition of pesticides waste sites?

Article 300 of the EC RK contains general environmental requirements for waste disposal landfills:

Hazardous waste is subject to neutralization, stabilization and other ways of exposure, reducing hazardous characteristics of waste. Each zone should have a monitoring system of air emissions (landfill gas), filtrate and waste water generated in the deposited waste in order to prevent their negative impact on the environment.

The owner of the landfill must take steps to reduce the production of methane in the landfill by reducing the volume of biodegradable waste disposal and implementing control systems and utilization of landfill gas.

The landfill's owner shall implement a unified admission procedure based on the classification of waste in order to prevent environmental pollution.

The owner of the landfill creates a liquidation fund for activities to land reclamation and monitoring the impact on the environment after the landfill's closure. It is prohibited to use a polygon without a liquidation fund.

What is the legal request regarding medical pesticides Waste monitoring?

There is no such a definition in Kazakhstan.

Reporting

What kind of legal persons (enterprises) must report to the relevant authorities on the hazardous wastes (including pesticides waste) registered during its activities? Is this kind of report compulsory?

According to article 289 of the EC RK, a passport of hazardous wastes is composed and approved by all individuals and legal persons during the process of economic activities, which generate hazardous waste. Passport of hazardous waste should be registered in the authorized body in the field of environmental protection within three months from the date of waste production. Passport of hazardous waste is to be updated and re-registered as soon as additional information becomes available which improves the completeness and accuracy of the data included in the mandatory sections.

What are the consequences in case of non-reporting?

	<p>In case of changing of the hazardous characteristics of the waste caused by the change in technological requirements of the process, which produced the waste, the passport of hazardous waste shall cease to be effective.</p> <p>According to Article 293 of the EC RK, activities of individuals and legal persons during the process of economic activities that generate hazardous waste are restricted or prohibited in case of absence of ability to ensure environmentally sound hazardous waste management which also will be safe for human health. Civil liability of individuals and (or) legal persons who are the owners of hazardous waste or carry out treatment of such wastes should be subject to obligatory environmental insurance in accordance with the Law of the Republic of Kazakhstan "On obligatory ecological insurance"</p>
Theme 14 Offences and penalties	<p><i>Is there being set up a certain legal frame regarding the liability (criminal/civil) of the carrier in case of the non-fulfilment of the already established duties?</i></p> <p>According to Article 220 of the Code of the Republic of Kazakhstan "On Administrative Offences" from January 30, 2001 No.155, violation of the rules for handling environmentally hazardous substances entails penalties for individuals, officials, entrepreneurs, legal persons who are subjects of small and medium-sized businesses or non-profit organizations, legal persons who are the subjects of a large enterprise – in the amount specified by law (the Code).</p> <p>Moreover, in accordance with Article 240-2, officials and entrepreneurs are to get penalties in the amount of from twenty to thirty, legal persons who are subjects of small and medium-sized enterprises – in the amount of from thirty to fifty, legal persons who are the subjects of a large enterprise – in the amount of from one hundred to two hundred monthly calculation indices for non-compliance of conditions of nature resources' use specified in the environmental permit. If individuals and legal entities fail to eliminate violations due to which effect of the environmental permit within prescribed period, they will be deprived of the environmental permit.</p> <p><i>Any legal (criminal, civil or administrative) measures to prevent and punish illegal import/export of pesticides wastes? Are there national legal provisions regarding the illegal traffic of pesticides wastes?</i></p> <p>The Law of the Republic of Kazakhstan On the accession of the Republic of Kazakhstan to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal No.389 approved at 10 February 2003.</p> <p>According to Article 308 of the Code of the Republic of Kazakhstan "On Administrative Offences", import and export of border check points and posts on plant quarantine import and export of plant materials that have not passed the quarantine inspection and proper treatment, transportation of these goods without authorization quarantine documents entail fine for individuals in the amount of two to five; for officials, entrepreneurs, legal entities who are subjects of small or medium-sized business or non-profit organizations in the amount of from twenty to forty, legal entities who are the subjects of a large enterprise in the amount of sixty to one hundred monthly calculation indices with confiscation of regulated products or without them.</p> <p><i>Are there any specific articles in the national Criminal/Administrative Codes or Environment Protection Law regarding punishment of illegal traffic?</i></p> <p>According to Article 463 of the Code of the Republic of Kazakhstan "On Administrative Offences", transport of dangerous goods by vehicles or specialized vehicles violating the rules as well as without a special permit for the transportation of dangerous goods of classes 1, 6 and 7, entails a fine for individuals in the amount of five to ten monthly indices; to entrepreneurs, legal persons who are subjects of small and medium-sized enterprises – in the amount of from ten to thirty monthly indices; legal persons who are the subjects of a large enterprise – in the amount of from thirty to fifty monthly indices.</p> <p>Moreover, according to Article 239 of the EC RK, it is prohibited to produce and use pesticides (chemicals) if they contain persistent organic pollutants provided in the international treaties of the Republic of Kazakhstan. Export and import of such substances are permitted only with the purpose of their destroying</p>
Theme 15 Official controls and inspection	<p><i>Are there inspections made at accumulation areas to ensure that all spill contingency materials are maintained in working order, to ensure that containers are not deteriorating and maintain their integrity, and to identify spills or releases? If yes, what is their periodicity?</i></p> <p><i>Whether the inspections are documented on inspection logs and the logs are maintained as part of the facility</i></p>

	<p><i>operating record?</i></p> <ol style="list-style-type: none"> 1) In order to carry out state phytosanitary control, State Plant Protection Inspectors have the right to visit objects of the state phytosanitary control, to make regulations to individuals and legal entities on eliminating violations of the legislation of the Republic of Kazakhstan on Plant Protection. 2) Local executive authorities of oblasts (cities of nationwide significance, capitals) in the sphere of plant protection are responsible for: <ul style="list-style-type: none"> - organization of work for pesticides (chemicals) disposal in coordination with the state authorities in the field of environmental protection and public health; - construction, operation and maintenance special storage capacities (burials), etc. 3) According to Article 114 of the EC RK, state environmental control is carried out on the disposal of hazardous substances, radioactive waste and discharge of waste water into the subsoil; observance of the rules of use, storage, transportation, disposal, recycling or other treatment of radioactive and other hazardous materials in the part of environmental requirements for the prevention of environmental pollution; <p>State environmental control is accomplished by organizing and conducting inspections for compliance and enforcement of environmental legislation on natural resources of the Republic of Kazakhstan.</p> <p>State environmental control includes a range of measures including the use of existing monitoring tools; conducting inspections; development and implementation of annual operational plans and work on the examined objects</p>
<p>Theme 16 Research and development</p>	<p><i>Whether Government, educational institutions, and private industry cooperate to support a broad range of research, development, training, and educational activities designed to create and diffuse knowledge and professional expertise on pesticides waste minimization?</i></p> <ol style="list-style-type: none"> 1) Centre of physical-chemical methods of research and analysis (CPCMRA) is a leading multidisciplinary research organization of the Republic of Kazakhstan. CPCMRA majors in the sphere of chemical analysis of substances and materials, chemical control on environmental objects, industrial products, mineral and plant materials, high-purity metals. A distinctive feature of CPCMRA is an organic combination of fundamental and applied sciences which provides establishment and development of promising research directions and practical implementation of research projects. The Centre conducts fundamental and applied studies in the sphere of ecology, electrochemistry, petrochemical, analytical, radiation chemistry, the development of composite materials and others. CPCMRA collaborates with foreign higher educational institutions: Lomonosov State University of Moscow (Moscow); D. Mendeleyev University of Chemical Technology of Russia (Moscow); Federal State Research and Design Institute of Rare-Metal Industry "Giredmet" (Moscow); Association "Analitika" (Moscow); Russian Scientific Centre "Applied Chemistry" (Saint-Petersburg); Saratov State University; the Krasnoyarsk State University; the University of London (Great Britain); Loughborough University of Technology (Loughborough, Great Britain); Stevens Institute of Technology (USA); Johannes Gutenberg University of Mainz (Germany); Shanghai University and Kunming University (China); Universities of Portugal, France, Denmark, Japan, etc. 2) "S.T. Suleimenov Physical and chemical methods of research" laboratory: thermographic analysis of solid substances and products of paint, textile, and consumer industries, chemical analysis of different waters (drinking water, natural water, waste water, mineral, etc.), analysis of soils contaminated by oil and oil products, analysis of non-ferrous metals and alloys, non-ferrous waste, analysis of steel, cast iron and their waste, analysis of various ores and minerals, construction materials and products, confirmation of technical specifications, analysis of content of sugar in foodstuffs, determination of saccharin, aspartame, caffeine, sodium benzoate, and carbon dioxide in the soft drinks. 3) "Physical and chemical methods of research" engineering laboratory. Physical and chemical methods of research" engineering laboratory was founded in 2009 within the frameworks of the Kazakh President's initiative, N. A. Nazarbayev, on the opening of such laboratories in the regions with the aim of integrating of science and higher education. In order to enhance the laboratory's activity and to carry out joint research and development in priority areas of scientific and technological development of Kazakhstan, the University signed Participation Agreements with 6 national research laboratories and shared laboratories of engineering profile and 5 Research Institutes of Kazakhstan. Moreover there are agreements with five Russian universities and 6 production (including oil) companies of this area.

- 4) LTP TOO "Kazakh Scientific Institute of Plant Protection and Quarantine" of AO KazAgroInnovatsia MoA RK
 5) TOO «Taukent mining and chemical company»
 6) "Reaktivsnab" accredited testing laboratory conducts tests of environmental objects in accordance with requirements ST ISO/MEK17025-2007, to be more precise: – emissions of pollutants from stationary and mobile sources; – determination of the pollutants' concentration in the sanitary-protection zone of the enterprise and in the working area's air; – determination of radionuclides in the air: – radiological and chemical analyses of water and soil. Recognizing the responsibility and the scope of our work, we do it scrupulously. For more information check our web-site: <http://reactivsnab.all.biz/info-about>

All the laboratories mentioned above are accredited in the area of work related to the protection of plants. Moreover, there are many other articles and studies which report on the research in the area of chemicals' effects on a particular ecosphere, including minimization of waste production.

Has your country developed pesticides waste prevention programmes? If any, please specify.

The Resolution of the Kazakh Government No.924 from September 10, 2010 "On Approval of the "Zhasyl Damu" Sector Program for 2010-2014".

The Ministry of Energy of Kazakhstan is the public authority responsible for the development and implementation of the program.

The Program's goal is to create conditions for conservation and recovery of natural ecosystems.

It is necessary to accomplish the next tasks in order to achieve the goals: development of the "green economics"; reduction of anthropogenic impact on the components of environment and health; conservation and recovery of natural ecosystems; development and improvement of the management system of environmental quality.

Has there been noticed an improvement after their implementation/ results achieved?

Activities planned to be accomplished within the framework of the "Zhasyl Damu" are also considered to be the activities of the Ministry of Agriculture of the Republic of Kazakhstan on the project of the Regional Office of the Food and Agriculture Organization of the United Nations Organization on Europe and Central Asia (FAO-REU) FAO GCP / RER / 035 / TUR «Initiative for Pesticides and Pest Management in Central Asia and Turkey " under the FAO/ Turkey Partnership Programme (hereinafter – the Project/Turkey). The primary objective of the Project/Turkey is to determine the scope of the obsolete pesticides' problem in Central Asia and ways to solve it. Moreover, the second FAO project, "Improving capacities to eliminate and prevent recurrence of obsolete pesticides as a model for tackling unused hazardous chemicals in the former Soviet Union" is the continuation of the first project.

Taking into consideration the fact that implementation of the policy and projects in the sphere of food and agriculture is FAO's major direction, FAO insists on assigning the Ministry of Agriculture as a coordinating public authority of the country, which participates in the Project. The Ministry of Agriculture should be an executive agency of the Project.

Inventory of obsolete pesticides was conducted on the south of Kazakhstan within the framework of the first project in 2013.

Are there on the national level organized special trainings for persons involved in the management of pesticides wastes? In case of existence of such trainings what kind of method is mainly used – formal or on-the-job? What do cover the training courses in this domain in your country (Ex: topic, categories of involved persons, the used sources during the educational process, etc.)?

According to Articles 181, 182 of the EC, the Centre for Training and Professional Development in the area of environmental protection and management of natural resources conducts environmental education and awareness.

The Centre for Training and Professional Development conducts courses on the following subjects:

- State control in the field of environmental protection and management of natural resources;
- Environmental audit;
- Environmental impact assessment and environmental management;
- International standards for environmental management systems;
- Environmental Code. Enforcement.

	Moreover there are courses on pesticides management (MoA). Hazardous waste courses which are conducted by consulting enterprises
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Section IV: Information supplementing legal analyses – from other Experts

Topic 1 – Pesticides Manufacturing Industry

Are there pesticides manufacturers in the country?

No. Pesticides are only imported.

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

- 1) MoE carries out researches within the framework of the budget program 003 in 2010-2012: Findings and recommendations on the research: "SCIENTIFIC FEASIBILITY OF IMPROVEMENT AND PROMOTION OF THE CONTROL ON PESTICIDES' CONTENT AND THEIR METABOLITES IN THE ENVIRONMENT" which was conducted at "International Academy of Ecology".
- 2) Researches accomplished within the frameworks of the state order of the Committee of Science of the Ministry of Education and Science of Republic of Kazakhstan on the budget program 055 "Scientific and/or technical activities", subprogram 101 "Grant funding of researches" for 2012-2014: e.g. "Study of the status of plant communities and structural and biochemical features of plant adaptation in the conditions of pollution by xenobiotics in order to use them for phytoremediation".
- 3) TOO "Kazakh Scientific Institute of Plant Protection and Quarantine" of AO KazAgroInnovatsia conducted a research on "Environmental and toxic assessment of pesticides which are used for protection of agricultural crops".

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

According to Article 70 of the EC RK, indicators of the waste management program are included as part of the disposal of production and consumption in terms of natural resources' use when issuing permits for emissions into the environment. These indicators reflect reduction of waste's volumes and reduction of their negative impact on the environment during the validity period of the permit

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

Topic 3 – Methods used for treatment of pesticides wastes

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

No



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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?

No.

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.

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

No

Topic 3 – Recycling facilities

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

See Part II under 8.1

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?

No

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).

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

No



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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?

No.

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

National Body Representation	Responsible Ministry	Contact person (name/contact details)	Activity and outcome	No. of reference/ annex if needed
SAICM focal point	Ministry of National Economy (Consumers protection committee)	Kenes Ospanov, Director of sanitary and expertize monitoring Ministry of health Ph: +87772779355 Email: filial_npc@mail.ru	National Chemicals Profile (2006) National Chemicals Profile (updated) (2009) National Chemicals Profile (updated) (2013) National Report on Chemicals Management (2013) Mainstreaming Chemicals into the planning system (Strategy to transition to the Green Economy, Strategic plans and other documents)	After reorganization of the Ministry of Health the Sanitary-and-epidemiologic committee moved to the Consumers Protection Agency
GEF Focal Point /Coordinating Unit	Ministry of Energy of the Republic of Kazakhstan	Vice Minister Talgat Akhsambiyev 010000 Astana city, 8, Orynbor tel.: +7(7172)74-00-75 fax.: +7(7172)74-08-02 email: t.akhsambiyev@energo.gov.kz	Coordination of all GEF financed projects	[1]
Stockholm Focal Point/POP Centre	Ministry of Energy of the Republic of Kazakhstan	Official contact person Vice Minister Talgat Akhsambiyev 010000 Astana city, 8, Orynbor tel.: +7(7172)74-00-75 fax.: +7(7172)74-08-02 email: t.akhsambiyev@energo.gov.kz National focal point Beibut Shakhanov 010000 Astana city, 8, Orynbor tel.: +7(7172)74-12-51 fax.: +7(7172)74-08-37	Convention Ratified (2007), NIP (2009) Updating of second NIP within UNDP project ongoing	[2], [5]



		email: b.shahanov@energo.cov.kz		
Basel Focal Point	Ministry of Energy of the Republic of Kazakhstan	National focal point Beibut Shakhanov 010000 Astana city, 8, Orynbor tel.: +7(7172)74-12-51 fax.:+7(7172)74-08-37 email: b.shahanov@energo.cov.kz	Convention Ratified (2003)	[3]
Rotterdam Focal Point	Ministry of Energy of the Republic of Kazakhstan	Official contact person Vice Minister Talgat Akhsambiyev 010000 Astana city, 8, Orynbor tel.: +7(7172)74-00-75 fax.: +7(7172)74-08-02 email: t.akhsambiyev@energo.gov.kz DNA contact person: Beibut Shakhanov 010000 Astana city, 8, Orynbor tel.: +7(7172)74-12-51 fax.:+7(7172)74-08-37 email: b.shahanov@energo.cov.kz	Convention Ratified (2007)	[4]
FAO National Focal Point	No		Under preparation set up of the Central Asia FAO office	
EU/other project implementation units for hazardous waste	Ministry of Energy of the Republic of Kazakhstan	Department of hazardous waste management JSC "Zhassyl Damu"	Development of a Feasibility Study on Construction of POPs/Industrial Hazardous Waste Disposal/Destruction Facility, including Remediation of Contaminated Sites and Environmental-Social Impact Assessment Implemented projects: UNDP PCB project UNDP NIP updating plus medical waste management project WB POPs projects (PCB and obsolete pesticides -2, 2009-2010) EU chemical safety project 2013-2015	
Inter-departmental committees	Ministry of Energy of the Republic of Kazakhstan	Waste management Working Group Bekbergen Kerey – Director of green economy department b.kerey@energo.gov.kz tel.:+7(7172)74-00-77		
Other national coordinating body				
National waste focal point	Ministry of Energy of the Republic of	Department of Waste Management of the Ministry of Environment and Water	Development and implementation of the waste	

	Kazakhstan	Resources Beibyt Shahanov– Director of waste management department tel.: +7(7172)74-02-57 email: b.shahanov@energo.gov.kz	management program Included changes into Ecocode related to waste management	
PRTR Protocol	Ministry of Environment and Water Resources (WR) Since August 6 2014 Ministry of Energy	Ms. Saule Tashkinbayeva Head of monitoring Department tel.: +7(7172) 740056 email: s.tashkenbaeva@energo.gov.kz	Protocol is not ratified Planning to ratify in 2015 UNITAR/UNEP, OSCE support Kazakhstan to ratify PRTR protocol	

Other information:

More than 20 international projects have been implemented in Kazakhstan in the field of hazardous waste management



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)

UNDP project (2003-2006) – 20% of POPs inventory.

035 project FAO/Turkey – South of Kazakhstan region pesticides inventory.

2009 – first NIP (www.undp.kz)

First stage 2010-2013: Providing inventory of POPs and dioxins

Second stage 2014-2017 is ongoing: POPs monitoring, disposal of waste pesticides, reducing dioxin emissions

Third stage 2018-2025: disposal of industrial POPs waste, POPs monitoring

2.2 Data sources and existing inventories (only Obsolete Pesticides)

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

MoA Committee of Governmental inspection gathering yearly information on obsolete pesticides from all regions

Local authorities are given this information.

Total amount on 01.01.2013 is 6 137 tonnes (see also under A2).

Pesticides content at the environment (2010-2012) Project financed by Ministry of environment

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)

2009 – first NIP was prepared within UNDP project, 20% inventory

1,500 tonnes of pesticides at the storage places. 12 oblasts were examined. Please note that these numbers are outdated now. See under A2.

250,000 POPs waste, 115 transformers, 50,000 condensers

2.4 NIP update (specifically on new POPs)

(e.g. responsible, year, number of sites, estimated tons, desk study/field surveys (% of total locations))

2014-2017 is the second NIP update ongoing (UNDP project)

2.5 UNITAR Chemicals Profile

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

2006 – National profile on chemicals management.

2009 – National profile on chemicals management (updated).

2013 – National profile on chemicals management (updated)

2.6 National Pesticides/POPs inventory

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

UNEP project – 2001. No field trips. The questionnaire was prepared for gathering information from local authorities

MoE and WR financed some projects related to pesticides, MoA Committee of Governmental inspection is responsible for current pesticides management

2.7 FAO PSMS inventory

In South of Kazakhstan region the PSMS inventory was prepared

1. inventory training: No
2. inventory work plan: No
3. inventory field visits and data collection: South of Kazakhstan
4. inventory data entry into PSMS: South of Kazakhstan July 2013
5. Inventory data validation – stocks and contaminated sites: No

3. Environmental Assessment If references needed please provide in the concerned Annex
3.1. National requirements <i>EIA= Environmental Impact Assessment etc.) + national experience</i> Developed Methodology of conducting EIA in transboundary content
3.2. International experience <i>non-FAO – WB, UNDP CESA etc.</i> Ratified Espoo convention. Developed Methodology of conducting EIA in transboundary content. Joint project between Kazakhstan and Kyrgyzstan was realized
3.3. Capacity government and private to develop <i>Are there consultants or government trained people?</i> Yes, there are some consulting companies which have capacity to prepare EIA. Some are listed here (www.kape.kz , www.ecoservice.kz , www.kazecology.kz)
3.4. FAO stages in Environmental Assessment (EA) and Environmental Management Plans (EMP) experience from EMTK v. 3 <i>(Environmental Management Tool Kit for Obsolete Pesticides)</i> No
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 Ministry of Energy, Ministry of Agriculture, Ministry of Internal Affairs, local authorities, Inspection Committee of MoA
4.2. All managers/coordinators/field people in place and operational Managers – 5 persons of the Ministry of Energy, MoA Coordinators – 2 persons
4.3. All Field teams established and operational Ministry of Energy, local authorities, Inspection Committee structure is in place
4.4. All Inventory data management people in place and operational Ministry of Energy, Committee of environmental regulation and control – 6 persons
4.5. National/Regional Inventory updated No
4.6. National Pesticides/POPs Inventory Established 2003 – first inventory including obsolete pesticides (UNDP project), 2014- last inventory related to PCB under finalisation (UNDP project). (www.undp.kz)
4.7. Contaminated Sites Register We have some data including in GIS format about 14 contaminated sites including 8 industrial contaminated sites. Estimated with PCB contaminated soils is 200,000 tonnes plus 50,000 tonnes obsolete pesticides contaminated soils (estimated data). No register. This data was published at the Journal "Ecology and Industry" RK No.2. 2013 – these are not official data
Other information:

5. Safeguarding If references needed please provide in the concerned Annex
5.1. National projects One national project on the site Darial-U, Ministry of Energy, Ministry of Internal Affairs. At the LTD Sharua landfill 13.1 tonnes of POPS pesticides have been temporary disposed
5.2. International projects No
5.3. FAO projects No
Other information:

6. Storage and transport Packaging / Containerization / Storage / Transportation
6.1. Transport regulations <i>In-country transportation planning competences available?</i> <i>(e.g. ADR/IMDG/RID/DOT compliant, route planning, scheme, vehicle inspection scheme, certified local contractors)</i> ADR
6.2. Driver regulations <i>Driver registration</i> Yes, national regulation
6.3. Storage regulations <i>(Seveso – off and on site emergency planning)</i> National regulations
6.4. Storage capacity <i>Private or government, collection centers available, (e.g. responsible, No. of suitable collection centers identified)</i> Government and private
6.5. Incident reporting and accidents National requirements
Other information:

7. Disposal Note: Map 7 (for benchmarking)
7.1. National experience Technology selection Transboundary transport under Basel Convention National transport Disposal capacities in Country <i>(e.g. type and number of disposal facilities, (landfill/destruction) permits, quality and standards applied (national/international), ownership (public/private), contact details)</i> 2 landfills for disposal. Within Governmental program "Plant protection" (2004) were disposed 486 tonnes pesticides. Project examples <i>(e.g. name project, tons, year, landfill or destruction facility, responsible authority (if possible, contact details)</i> Darial U total – There is 15,998 condensers – 10,052 condensers was exported within Governmental budget, responsible Agency was MoE 500 tonnes export to Germany – 2009 Governmental budget, responsible Agency was MoE (at present MoE is part of Ministry of Energy). 80 tonnes – export to France 2014 within UNDP project
7.2 International experience Development of a Feasibility Study on Construction of POPs/Industrial Hazardous Waste Disposal/Destruction Facility, including Remediation of Contaminated Sites and Environmental-Social Impact Assessment WB, co-financing from Government <ul style="list-style-type: none"> •Technology selection – within WB projects •Transboundary transport under Basel Convention •National transport
7.3 Experience with FAO No
Other information:

8. Containers
<p>8.1. National experience Current pesticides containers shredded and disposal Two companies (LTD Sharua and Eco-Garant) take containers for disposal. In Kazakhstan there is no sufficient capacity for current containers disposal in an appropriate way. Only one company is taking containers for shredding and disposal (Eco-Garant), for disposal (generated 125 tonnes containers, 8 tonnes pesticides)</p> <p>1. LTD Sharua – disposed (2005-2013): POPs: 13,1 tonnes OPs: 889,1 tonnes Empty containers: 1172,2 tonnes</p> <p>2. Eco-Garant – (2004-2014) Empty Containers: 2,000 tonnes Hazardous waste: 1,145.616 tonnes including oil waste, varnish-and-paint waste, etc. Data were obtained from JSC Zhassyl Damu and from Eco-Garant</p>
<p>8.2. International experience <i>e.g. Priorities on containers in NIP Action Plan</i> No</p>
<p>8.3. FAO supported plan No</p>
<p>8.4. Amount and type of empty containers/packaging materials? <i>(e.g. materials recycling in types, amounts)</i> 330,000 – barrels and boxes were identified within UNDP project (2003-2006). This information is now updated to 169,660 pcs per 2014. See also under Section II, A. Agricultural chemical waste, Empty containers</p>
<p>8.5. Collection Centres for empty containers? <i>(e.g. Quantity of centres, responsibility, compliant with FAO guidelines?)</i> Yes, one collection centre for containers from current pesticides, see under 8.1</p>
<p>Other information:</p>

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/ Annex
		Volume, tonnes/year	Volume, tonnes	
I. Summary for all waste streams	Hazardous waste generated in 2014: Total hazardous waste treated or disposed during the year (2014) Remaining hazardous waste for disposal	337,414,800 110,862,600 226,552,200	9,969,529.9	In accordance with passports of hazardous waste http://www.stat.gov.kz
A. Agricultural chemical waste: (see also parts already been filled in in the benchmarking section)				
1. Obsolete pesticide waste			6,137	Governmental Committee of Inspection in Agriculture (MoA)
2. POPs pesticide waste: <i>aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene (HCB*), mirex, toxaphen, chlordane, alpha hexachlorocyclohexane (α-HCH)¹*, beta hexachlorocyclohexane (β-HCH)*, lindane, pentachlorobenzene*</i>	POPs part is unknown		Unknown, cannot be estimated	
3. New pesticides waste (incl. fake (counterfeit) pesticides)	No data			
4. Empty containers waste	Disposal in two polygons – Sharua (2005-2013) and Eco-Garant – (2004-2014). For details, see under Section I, 6. Containers, 6.1 National experience. Each year are additionally delivered at: Sharua empty containers (mean quantity in tonnes/year varying over the last 3 years): At Eco-Garant empty containers (quantities in tonnes/year varying over the last 3 years):	70-90 350-450		

¹ HCH is often used in Russian as HCCH.

	Updated figure on empty containers on 15/04/2014 is: Per 1/07/2012 was calculated: These containers were bought within public budget. Total amount of empty containers is now in pcs:		76,408 pcs 87,000 pcs 169,660 pcs	Received from Ministry of agriculture
5. Contaminated sites	14 were selected within WB and Canadian Trust Fund project (2010)			
a. Burial sites (polygons)	14, working 2 at present time		no data available	
b. Storage sites	140		no data available	
c. Usage sites (airfields, formulation plants etc.)	57		no data available	
B. Industrial chemicals:				
1. POPs <i>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)</i> <i>b. brominated industrial chemicals</i> <i>c. Fluorinated industrial chemicals perfluorooctane sulfonyl fluoride (PFOS) and its salts and perfluorooctane sulfonyl fluoride (PFOSF)</i>	Capacitors and transformers: 56,000 capacitors in operation and 116 transformers = $56,000 \times 75 \text{ kg} = 4200 \text{ tonnes}$; $116 \times 4 \text{ t} = 464 \text{ tons}$. Total At Darial U total – 15,998 condensers, (10,052 condensers were exported within Governmental budget, responsible Agency – MoE to Germany) and 5946 piece capacitors remain at Darial. They have 60 kg and 40 kg weight. Total 500 tonnes exported to Germany in 2009. Governmental budget, responsible Agency – MoE 80 tonnes – exported to France in 2014 So total was taken out from Kazakhstan: 580 tons Total Number of Condensers (capacitors remaining in Kazakhstan) in tonnes: 4,664 Summary data: The estimated amount of other waste		4,664 216	NIP, 2009 [10]

	containing PCB, including soils, was estimated at 250,000 tons Total Export: 580 tons Remaining estimated amount of other waste containing PCB, including soils: (This included soils contaminated with PCB and contaminated equipment)		249,420	
2. Contaminated sites e.g. Contaminated containers, transformers and equipment	8 contaminated sites (PCB), but there is no proper inventory		no data available	
3. Oily wastes e.g. non-POPs production waste, lagoons of sediments and sludges, solvents, waste lubricating oils	sludges waste lubricating oils solvents Total oily wastes: (Information from Environmental regulation Committee, Ministry of Energy)	no data	8,038 10,5470 1,999,070 2,017,615	
4. Inorganic wastes Solid, Liquid and sludge inorganic waste (often in many country with mining activities and metal industries)	Mining waste generated per year: Storage (Information from Environmental regulation Committee, Ministry of Energy)	1 billion	5.2 billion	
C. By-products				
1. Unintentional POPs <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>	Within new UNDP project (2014-2017) it is planned to calculate unintentional POPs which are generated in main industries including incineration of medical waste	no information available		

2. a-HCH*, b-HCH* (being generated from the Lindane production) and pentachlorobenzene*			no info available	
3. HCB* generated from PVC production and rubber tyres production			no info available	
D. Petroleum wastes Tarry and bituminous wastes, still bottom waste (from Distillation plants)	Every year was generated: Contaminated soils by diesel oil: Oil sludge: petroleum waste stored (Information from Environmental Regulation Committee, MoE WR) Total petroleum waste	400,000 400,000	150,578 86,396 4,500,000 4,736,974	
E. Inorganic wastes Liquid and sludge inorganic waste Solid inorganic waste	Liquid and sludge inorganic waste - Solid inorganic waste Total inorganic waste	325,215 328,961 654,176	no data	
F. Health Care Risk Waste	It is expected that the total quantity of infectious waste generated in Kazakhstan's healthcare facilities well exceeds: 10,000 t/y Correspondingly, the amount of generated municipal waste in country healthcare facilities is expected to be more than: 20,000 t/y. However, there is no information about the quantities of hazardous waste. Disposal: Healthcare waste incineration in Kazakhstan in 2011 amounted in total to 8173 tons: 5460 tons was treated in dedicated incinerators and 2713 tons in "adopted" batch type boilers and muffle furnaces. Please note that the largest source of PCDD/Fs emissions are found in the batch type furnaces. Hazardous waste part: Class B and Class C are classified as hazardous waste For 2011: Infectious waste (Class B): 7,661.4 t Extremely infectious waste (Class V) 895.3 t Total hazardous waste in Kazakhstan		no data available	UNDP/GEF [12]

	2011: 8,556.7 t	8,556.7		
Summary volumes				
Estimate of total hazardous waste market (watch need tonnes/year)	(2014)	226,552,200	9,969,529.9**	http://www.stat.gov.kz
POPs waste volume			250,000	
Other information added to this table:	Total quantity of hazardous waste end of 2014: around 10 bill tonnes			
<p><i>*HCB, α-HCH, β-HCH and pentachlorobenzene an occur as pesticide, by –product and industrial chemical</i></p> <p><i>Please note that nuclear/radioactive waste will not be considered for this overview!</i></p> <p><i>**At present there is still unclear what definition to use in the country. On the one hand the old Russian Waste Classification (I-V) that defines all wastes as hazardous and on the other hand the definition of the problem as used under the Basel Convention, which used by the Ministry of Energy. However there is no classification given by the law and the this gives of course a large difference in the quantities of hazardous waste</i></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
1. Existing plants <i>e.g. existing and functioning hazardous waste landfills (polygons) or soil treatment plants</i>				
1. Private owned	2 polygons, no soil treatment plant	Sharua Eco-Garant	Kostanai region, Zatonolsk, Auezov str. tel.: +7 (7162) 26-33-50 Akmolinsk oblast, Kokshetau	
2. Government owned	No			
2. Potential plants <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	General info on cement kiln studies 10 cement kilns are listed below		A report was prepared as part of the World Bank project (2010) on the proposed containment and elimination of PCB and obsolete pesticides. The name of the project "Proposed containment and elimination PCBs and obsolete pesticides project –consultant services for preparation study (2010) A Canadian project was also carried out to research the state of cement plants for recycling POPs. Only one plant in Kazakhstan – Heidelberg Cement – reacted positively to the burning off of POPs/pesticides in cement kilns	
	1. Mynaral Cement Plant (Zhambyl Cement Production Company, LLP) (VicatGroup) Address: Republic of Kazakhstan, Moyinkym district, settlement Mynaral	Olga Latonenko jambulcement@jambylcement.kz 2 offices – Almaty, Taraz www.cementnik.ru	Plant was up in 2011. Capacity of 1.1 million tonnes of cement per year. Dry process. Plant reached full capacity in 2012	
	2. Khantau Cement Plant, JSC (ACIG) at the Khantau station Republic of	Office in Almaty tel./fax: +7 (727)311-11-08 http://5969.kz.all.biz	Plant has a capacity of 500,000 tonnes per annum. Planned to go online in 2013, dry process	

	Kazakhstan Zhambyl region, Maiynkym district settlement, Khantau			
	3. Standart Cement, LLP Shymkent city, Al-Farabi district, 082, building 8479	Ezekallo Nonna (int.1133) tel.: +8 (7252) 49-41-19, 49-40-07, 49-41-82	Plant was constructed under the framework of a State Program of Forced Industrial-Innovative Development. Production capacity of 1 million tonnes of cement per year. Dry process. Commissioning date – 2011	
	4. Kazakh Cement, JSC (Ornek XXI, JSC) in the city of Shar, East Kazakhstan Oblast. Cemey city	Sultan Baizhumanov Kazakh@cement.kz tel.: +8(7222)550999, +7(727) 2576535	The plant reached full capacity in 2012. Plant has a capacity of 1 million tonnes per year. Dry process. On line	
	5. Kaspi Cement, JSC, Western Kazakhstan www.heidelbergcement.com	Kamila Kozhabekova Kamila.Kozhabekova@heidelbergcement.kz tel.: +7(727)2730603	Plant has a capacity of 800,000 tonnes per year. Dry process. Plant is on line now. Heidelberg Cement has been building a new cement plant	
	6. Rudniy Cement Plant Kazakhstan, Kostanay oblast, Rudniy city	tel.: +7 (71431) 27-004 fax: +7(71431) 20-165	This plant has been constructed for the Rudniy Cement Plant with a planned capacity of 500,000 tonnes of cement a year. The project is focused on production of five brands of cement, including a high-quality one, and will meet the most modern building codes. Commissioning date was in december 2014 and the plant is on line now	
	7. Heidelberg cement –Bukhtarma cement	Usoltsev Juri info@heidelbergcement.kz tel.: +7(727)273-05-03		
	8. Central Asia cement www.cac.kz	Zhuldaspayev Mukhamed – General Director cement@cac.kz tel.: +7(7213)94-11-07, 941127		
	9. Build Investment Kazakhstan(Russia 50% Sibirsk cement) www.bi-group.kz	Zhomart Tubekbayev bi-cement@bi-group.kz tel.: +7(7172)66-04-43 Yerbolat Absalyamov tel.: +7(7222)35-06-26		
	10. United Cement Group-Semey Cement www.unicementgroup.com	Gennady Kamenev Tatyana Kucherenko +7(727)277-77-20 tat_ka2007@mail.ru		

2. Government owned	No			
3. Planned facilities <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				
2. Government owned	In 2016 will be started construction facilities for incineration hazardous waste Pavlodar region			
4. Planned and/or implemented pilot plants <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>				
1. Private owned	One plant has interest to deal with OPs and POPs – Heidelberg group			
2. Government owned				
5. Existing and/or planned empty container (plastic and or steel) recycling facilities/initiatives <i>Steel recycling e.g. at existing steel industry and plastic at existing plastic industry</i>				
1. Private owned	No			
2. Government owned	No			
6. Any other information related to important market players in this field <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>				

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	There are POPs and OPs in 12 regions. Exact volumes will be identified after detail inventory So far no facility exists.		\$3,3 mln for the disposal in Germany from national budget (500 tonnes). To France – 80 tonnes – within UNDP project (GEF budget)	
2. In foreign country	Germany, France	By rail way and aircraft		
1. In country 2. In foreign country				
2. Assessment of possible storage networks: waste transfer stations e.g. at main railway stations or at existing landfills (polygons) or Waste handling stations <i>List and describe existing stations with required details</i> No, Kazakhstan does not have a special transfer station. 80 tonnes of PCB was temporary stored on the property of the company – Arcelor Mittals – and was transferred by aircraft according to IATA Dangerous Goods Regulations				
3. Assessment of transport capacity <i>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)</i> <i>Describe here, if not already covered under 1. Benchmarking under 6. Storage and transport and 7. Disposal</i> There are special transports for hazardous waste transportation				
4. Reference to the requirements of the Basel Convention (+ previous) experiences made with international export Implications of custom facilities <i>Describe Cases/ experiences that country have been made with international exports, not already covered under 1. Benchmarking under 7.2</i> <i>International experience Indicate year and location (country) where transported from and where to and authorities involved and kind of waste. Briefly describe cases</i>				
Case 1: See under 1. See Foreign Countries. All transport has been implemented by international contractor according to the international rules				

Summary sheets on findings
<p>- Identify the gaps in information</p> <p>It is necessary to provide a detail inventory of POPs including PCB, OP, contaminated sites and soils. To create a toxic centre and collect information about accidents</p>
<p>- Analysis of barriers (technical, economic) to the development of national and regional waste management capacity</p> <p>No strong legislation and control at the governmental and local levels at the same time no motivation for enterprises. Not sufficient examination of good practices demonstration of the advantage of management and elimination of hazardous waste. Limited resources at the national and local levels (governmental budget and co-financing within international projects. Not available permanent function of the Steering Committee focused on the POPs/hazardous waste. Lack coordination and information exchanging between Ministries/Agencies/Companies</p>
<p>- Analysis of opportunities (technical, economic) to the development of national and regional waste management capacity</p> <p>Harmonization of the environmental Code with European directives, implementation of Green economy Concept and municipal waste management program. Large experience of cooperation with EU, WB, UNDP</p>
<p>- Other findings that need to be addressed</p>

References

Documents, indicated below you can find on the follow web-sites: www.undp.kz, www.eco.gov.kz, www.adilet.zan.kz/rus and <http://www.stat.gov.kz/>

Refer. No.	Document name
[1]	Governmental regulation 09 December 2014, No.1289
[2]	Law RK 7 June 2007 was the Stockholm Convention ratified
[3]	Law RK 10 February 2003 No.389-II was the Basel Convention ratified
[4]	Law RK 20 March 2007 No.239 was the Rotterdam convention ratified
[5]	Ministerial Decree 8 December 2009 Adoption of the NIP of the Stockholm Convention
[6]	2009-2010 years – WB projects on Canadian grant “Examination obsolete pesticides and PCB waste”
[7]	National Chemical profile (updated in 2013)
[8]	EcoCode RK 09.02 2007
[9]	Governmental Plant Quarantine law 11.02.1999, No.344-1
[10]	UNEP: National Implementation Plan of the Republic of Kazakhstan on the Obligations under the Stockholm Convention on Persistent Organic Pollutants, approved by Decree of the Government of the Republic of Kazakhstan “on December 8”, 2009 No.261. http://chm.pops.int/Implementation/NIPs/NIPTransmission/tabid/253/Default.aspx Heading: National Implementation Plans, then click on NIPS and go to Kazakhstan and download NIP
[11]	UNEP: IMPLEMENTATION PLAN OF THE REPUBLIC OF KAZAKHSTAN ON THE OBLIGATIONS UNDER THE STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS FOR 2015 – 2018, Approved by Decree of the Minister of Energy of the Republic of Kazakhstan of « ____ » 2014, http://chm.pops.int/Implementation/NIPs/NIPTransmission/tabid/253/Default.aspx Under: National Implementation Plans: Chapter NIPS, Heading: National Implementation Plans, then click Addressing COP 4 amendments and go to Kazakhstan and download NIP
[12]	UNDP / GEF and Government of the Republic of Kazakhstan Project “NIP update, integration of POPs into national planning and promoting sound healthcare waste management in Kazakhstan”, then go to Related Documents and download Project Document, see http://www.kz.undp.org/content/kazakhstan/en/home/operations/projects/environment_and_energy/promotion-of-energy-efficient-lighting-in-kazakhstan.html then go to Related Documents and click on Project Document
[13]	Ministry of National Economy of the Republic of Kazakhstan, Committee on Statistics, Ecological indicators of environmental monitoring and assessment, see I. Waste, Table Management of hazardous waste, Table http://www.stat.gov.kz/faces/homePage/ecolog?_afLoop=726978997227204#%40%3F_afLoop%3D726978997227204%26_adf.ctrl-state%3D122pio9q8c_25 .



ANNEXES

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

Annex 2: Custom Union Acts

Annex 3: Impact of obsolete pesticides

Annex 4: Waste and Chemical Issues in Kazakhstan



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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)



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Terms of Reference for Consultant/PSA

Job Title	Coordination and implementation of a Disposal Study for Obsolete Pesticides in the Former Soviet Union		
Division/Department	AGPM		
Programme/Project Number	GCP/RER/040/EC		
Location	Regional		
Expected Start Date of Assignment	1 June 2012	Duration	1 year
Reports to	Kevin Helps	Title:	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 tonnes 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 tonnes of POPs for disposal) and a rough estimation of their national distribution, tonnes 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

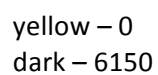
- 1. First degree in chemistry, engineering, environmental science or similar subject area related to chemicals management;
- 2. Higher degree (PhD) in a waste management related area, chemistry or engineering discipline linked to chemicals management;
- 3. Research or (university) lecturing experience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

- Single list of products subject to bans or restrictions on the import or export of the Customs Union within the EurAsEC in trade with third countries, approved. Decision of the Board of the Eurasian Economic Commission No.134 on August 16, 2012
- Regulations on the import, export and transit of the customs territory of the Customs Union of hazardous wastes, approved. Decision of the Board of the Eurasian Economic Commission No.134 on August 16, 2012
- Single sign the form on the import, export and transit of certain products included in the single list of goods subject to bans or restrictions on the import or export of the Member States of the Customs Union within the Eurasian Economic Community in trade with third countries and guidelines for its completion approved by the decision of the board of the Eurasian economic Commission No.45 from May 16, 2012



Annex 4: Waste and Chemical Issues in Kazakhstan



Waste and chemical issues in Kazakhstan

Sites with significant amounts of industrial waste and chemicals

- Poorly maintained radioactive waste, historical pollution
- Radioactive waste in controlled conditions
- Notorious historical pollution from industrial development
- Other industrial waste and chemical issues raising public concern

Arms race and military legacy waste

- Former nuclear test sites: soil pollution, affected ecosystems
- Rocket launch sites and former military test ranges: soil pollution, scrap metal, toxic spills

Municipal waste

- Poorly managed waste collection or landfill practices

Sites with significant amounts of persistent organic pollutants

- Major stores and dumps of obsolete pesticides recognized as hotspots
- Other disposal sites for agricultural chemicals
- Highly PCB-contaminated sites and major PCB-containing equipment sites
- Other PCB-contaminated sites

Improvements in waste and chemical management

- New hazardous waste disposal facilities
- Ongoing and planned clean-up actions or waste reduction initiatives
- ASTANA** Municipal waste management initiatives

Source: Waste and Chemicals in Central Asia, A Visual Synthesis, Zoi Environment Network, 2013