

Working Document

Management of Obsolete Pesticides

Ukraine



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Part I – The assessment of the legal framework on the pesticides waste management in Ukraine

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)

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

The Republic of Ukraine accessed to the Rotterdam Convention on 6 December 2002.

Ukraine has been a member of WTO since 16 May 2008

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

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

Ukraine signed the Stockholm Convention on 23 May 2001 and ratified it on 25 September 2007. National Implementation Plan on Stockholm Convention was transmitted to BRS Secretariat on the 21 January 2016

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)

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

Ukraine accessed to the Basel Convention on 8 October 1999.

By Decision III/1, of 22 September 1995, the Third meeting of the Conference of the Contracting Parties to the above Convention, which took place in Geneva from 18 to 22 September 1995, adopted an Amendment to the Convention (so-called Ban Amendment), however, Ukraine did not ratify that amendment.

Ukraine did not sign the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal, adopted on 10 December 1999

International cooperation

Were there any Bilateral, Multilateral or Regional Agreements signed in the field of pesticides waste management?

There are a number of international agreements signed by Ukraine in relation to waste management (including issues in relation to pesticides). The Republic of Ukraine cooperates with other states in monitoring and environmental protection.

Among the signed by Ukraine Agreements the following can be mentioned:

Convention on the Protection of the Marine Environment of the Baltic Sea Area of 9 April 1992, entered into force on 17 January 2000. Official Journal L 73, 16 March 1994, pp. 20-45.

The Contracting Parties (Czech Republic; Denmark; Estonia; European Union; Finland; Germany; Latvia; Lithuania; Norway; Poland; Russian Federation; Sweden and Ukraine) have concluded this Agreement with a view to cooperating in the protection of the marine environment of the Baltic Sea Area, which is defined by article 1. The Contracting Parties shall individually or jointly take all appropriate legislative, administrative or other relevant measures to prevent and eliminate pollution in order to promote the ecological restoration of the Baltic Sea Area and the preservation of its ecological balance. In doing so, they shall apply the precautionary principle as well as the polluter pays principle as required under article 3. Moreover, the Contracting Parties shall promote the use of Best Environmental Practice and Best Available Technology. If the reduction of inputs, resulting from the use of Best Environmental Practice and Best Available Technology, as described in Annex II, does not lead to environmentally acceptable results, additional measures shall be applied. Further provisions refer to particular protective measures, such as the prohibition of



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incineration and dumping in the Baltic Sea Areas (arts. 10 and 11) and set out an information exchange system. Article 19 provides for the establishment of the Baltic Marine Environment Protection Commission. The Convention includes the following seven Annexes: (I) Harmful substances; (II) Criteria for the use of Best Environmental Practice and Best Available Technology; (III) Criteria and measures concerning the prevention of pollution from land-based sources; (IV) Prevention of pollution from ships; (V) Exemptions from the general prohibition of dumping of waste and other matter in the Baltic Sea Area; (VI) Prevention of pollution from offshore activities; (VII) Response to pollution incidents.

Agreement on cooperation in the sphere of ecology and environmental protection, 8 February 1992. The Parties (Armenia; Azerbaijan; Belarus; Georgia; Kazakhstan; Kyrgyzstan; Moldova, Republic of; Russian Federation; Tajikistan; Turkmenistan; Ukraine; Uzbekistan) agree: (a) to elaborate environmental standards; (b) to carry out environmental monitoring; (c) to develop the system of protected areas, biosphere reserves and national parks; (d) to carry out environmental impact assessment (EIA); (e) to carry out environmental audit; (f) to promote ecological education; (g) to observe obligations arising from international agreements signed by the USSR (art. 2). The cooperation shall be carried out in the following fields: (a) harmonization of the environmental legislation and norms and standards on environment; (b) joint programs on hazardous and radioactive waste disposal. For the implementation of the aforesaid provisions an Interstate Ecological Board shall be set up and a special international ecological fund administered thereby shall be constituted (art. 4).

Convention No.479/DP between Bulgaria, Georgia, Romania, the Russian Federation, Turkey and Ukraine on protection of the Black Sea against pollution as of 26 February 1993. The Parties have agreed as follows: 1) The present Convention shall be applicable to the Black Sea with the Southern limit established by the line joining Capes Kelagra and Dalyan and including territorial sea and EEZ of each Party (art. 1). Each Party shall prevent marine pollution of the Black sea by any source and by any substances in the Annex attached to the text of the Convention (art. 6). The Parties shall undertake arrangements for the prevention of marine pollution from land-based sources (art. 7) and dumping from ships (art. 8). The Parties shall cooperate for the prevention and decrease of marine pollution as a result of disasters and prevention of oil pollution (art. 9). The Parties shall not permit in the areas under the jurisdiction thereof burial causing pollution by natural and legal persons of the states not pertaining to the Black Sea basin (art. 10). The Parties shall cooperate for the prevention of marine pollution caused by transboundary movement of hazardous waste and illegal management thereof (art. 14). The Parties shall jointly carry out environmental monitoring of water bodies (art. 15). The Convention contains three associated protocols: (1) Protocol on Protection of the Black Sea Marine Environment against Pollution from Land-Based Sources; (2) Protocol on Cooperation in Combating Pollution of the Black Sea Marine Environment by Oil and Other Harmful Substances in Emergency Situations; (3) Protocol on the Protection of the Black Sea Marine Environment against Pollution by Dumping.

There are also CIS countries agreements related to legislation on hazardous waste and other waste, but for the radioactive ones (with participation of Ukraine):

1. Agreement on interstate movement of hazardous and classified (categorized) cargos (23 December 1993, Ashgabat, Turkmenistan).
2. Agreement on Establishment of Free Trade Area (5 April 1994) and its Protocol (2 April 1999).
3. Foundations of the customs legislation of CIS Member states (10 February 1995).
4. Agreement on Control of Transboundary Movement of Hazardous and Other Waste (Moscow, Russian Federation, 12 April 1996). Informational bulletin of the Council of Heads of States and Council of Heads of Governments of CIS "Commonwealth" of 12 April 1996, №2, p. 93. Bulletin of international agreements, November 2002, №11.
5. Decision of the Council of Heads of CIS States on the Concept of Economic Integration Development of the Commonwealth of Independent States (Moscow, Russian Federation, 28 March 1997).
6. CIS Agreement on exchange of environmental and ecological information, signed on 11 September 1998, entered into force for the Russian Federation on 20 July 2001.
7. Agreement between the Government of the Russian Federation and the Government of Ukraine on Cooperation in the field of Mercury Containing Waste Treatment (Kiev, Ukraine, 28 May 1997). "Rossiyskaya Gazeta" of 7 June 1997.
8. Resolution of the Council of the Interparliament Assembly of the Commonwealth of Independent States members of №29 "On the concept of the Convention on Collective Ecological Safety"(14 June 1998), Informational bulletin of Interparliament Assembly of CIS member-states, 1998, №18.
9. Resolution of Interparliament Assembly of the Commonwealth of Independent States members №11-9 (15 June 1998), on model law "On Production and Consumption Waste"



Section II: Regulatory framework on waste management

Chapter I. Political & legal framework

General overview

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

The general system of jurisprudence in Ukraine is part of the European continental system of "civil law". Ukraine gained its independence in 1991. As any civil law system, Ukraine's system is based on laws adopted by the Verhovna Rada (the Parliament). The Constitution is the fundamental law, followed by various codes (Civil Code, Criminal Code, Labor Code, Subsoil Code, etc.), followed by laws of general nature and laws of special nature.

The general problem with Ukrainian laws is that they are instable and/or of inadequate quality. It is difficult for everyone, including judges, to understand clearly which rules are applicable to a particular relation at a particular time as the laws' provisions contradict each other. Apart of that, the ever-changing legislation makes it difficult to make any estimations or plans for the future. The main specific problem in the area of civil legislation is the absence of a modern civil code.

The implementation of laws adopted by the Rada is based on subsequent edicts, decrees, regulations, etc., adopted by the President, Cabinet of Ministers, National Bank and various ministries (regulations adopted by the ministries are subject to mandatory review and registration by the Ministry of Justice).

The Ministry of Ecology and Natural Resources of Ukraine has developed the draft Program on the waste management for 2013 – 2020. It was planned to submit the Program for the consideration of Parliament of Ukraine in November 2014. Over the past few years there was a hazardous waste exported from Ukraine:

- 1,300 tons of the mixture "Premix", which was illegally carried into Ukraine;
- more than 26,000 tons of unusable pesticides;
- more than 21,000 tons of benzene hexachlorobenzene from the hazardous waste landfill in the Kalushs'kiy District in the Ivano-Frankivs'k;
- more than 2,700 tons of monochlorobenzene from the territory of the government enterprise "Zahid" (Kyiv);
- 320 tons of wastes, which contain beryllium from the territory of the government enterprise "Zahid".

Situation with stocks of obsolete pesticides

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

The Ukrainian Law "On Waste" of 1998 provides definition of transboundary shipments of waste, meaning waste transportation to/ or through Ukrainian territory or through the territory of another State. However, this law does not contain provisions in relation to the transboundary shipments of waste. Article 36 of this Law was removed in 2002.

It should be mentioned that before 2002, in accordance with the Law of Ukraine "On wastes" as of 5 March 1998 No.187/98-BP (Article 36) the import of wastes to Ukraine with the aim of their storage or disposal was forbidden. However, Law No. 3073-III of 7 March 2002 repealed Article 36.

Therefore, currently Ukraine does not have restrictions on import of hazardous and other type of waste for final disposal.

Ukraine has no restrictions on the import of hazardous waste and other waste for recovery.

Ukraine has no restrictions on the transit of hazardous and other type of waste.

No additional restrictions in comparison with the Basel Convention procedure.

Transboundary movements of hazardous waste is regulated by the Decision of the Cabinet of Ministers of Ukraine No.1120 as of 13 July 2000 "On the approval of Regulations about the control for transboundary movements of hazardous waste and their recycling/removal and the Yellow and Green list of waste".

Under Art. 16 of this Decision, the import of hazardous waste to Ukraine for the purpose of their storage or burial is forbidden. Hazardous waste can be imported only under conditions of presence of the written agreement of the Ministry of the Environment Protection of Ukraine. According to Article 20 of the same Decision, the Ministry of the Environment Protection of Ukraine can give the written agreement on import of hazardous waste subject to certain conditions, ex:

- The exporting country a party to the Basel Convention or the corresponding international agreement about trans-boundary movement of hazardous waste is made between Ukraine and that country;
- The exporting country has no technical opportunities and necessary capacities for removal and disposal



of such waste products ecologically or such waste can be used as secondary raw material in Ukraine.

Were there 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?

At national level there is a plan to achieve the following milestones (according to the Strategy of National Ecological Policy for the period till 2020):

- the requirement to reduce twice the speed of volumes growing of dangerous waste' collection till 2020;
- to reduce in twice the intensity of creation of the total volume of waste per 1 Mio UAH of GDP;
- to increase by 50% the volume of waste use as recyclables;
- to destroy polygons of solid communal waste, which do not correspond to norms of ecological safety.

Planning in relation to waste should be directed towards achievement of these goals.

At the local level – the requirement to develop a scheme of sanitary cleaning within the settlement and organization of separate collection of communal waste, other types of waste as recyclables as a part of Local Environmental Action Plan (according to the Law “On Local Authorities” as of 21 May 1997).

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

Article 26 of the Law on Waste regulates state registration and certification of waste in Ukraine.

State recording and passportization (certification) is mandatory for all waste generated on the territory of Ukraine and which covered by this Act. State accounting (recording) and certification of waste is carried out in the manner prescribed by the Cabinet of Ministries of Ukraine (however, the text of this legal document was not found for the legal analyses).

Article 34 “Requirements for hazardous waste” provides that all hazardous waste should be divided into classes and recorded in accordance to their harmful effects to the environment, human life and health and in line the list of hazardous properties. The corresponding class of waste defined by the manufacturer of waste in accordance with the legal acts approved by the specially authorized central body of executive power for Environment and Natural Resources in consultation with the State Sanitary – Epidemiological Service of Ukraine. However, the Law itself does not establish such classes.

List of classification groups of waste is provided by Ukrainian ДК 005-96 “Classifier of Waste”. It defines the following groups of waste:

Group 01. Waste of agricultural production and hunting.

Group 02. Waste of forestry production and wood cutting.

Group 05. Waste of fishery.

Group 10. Waste of black coal, lignite charcoal, peat.

Group 11. Waste of raw oil extraction and natural gas; waste created by services to extract oil (expect investigation works).

Group 12. Waste of extraction and enrichment of uranium and thorium ores

Group 13. Waste of extraction of metal ores.

Group 14. Waste of extraction of other minerals.

Group 15. Waste of food and drinks production.

Group 16. Waste of tobacco products.

Group 17. Waste of textile production.

Group 18. Waste of cloth and fur production

Group 19. Waste of leather and leather goods production.

Group 20. Waste of wood production and wood goods and cork, straw goods etc.

Group 21. Waste of cellulose, paper and paper goods production.

Group 22. Waste of production of printed goods and duplication of information matters.

Group 23. Waste of production of coke, products of oil processing and nuclear fuel.

Group 24. Waste of production of chemicals, chemical products and artificial fiber.

Group 25 Waste of production of rubber and plastic goods.

Group 26 Waste of production of other products from not ore minerals.

Group 27 Waste of production of main metals.

Group 28 Waste of production of mixture metal goods.

Group 29 Waste of machines and equipment production.

	<p>Group 30 Waste of production of office equipment and computers. Group 31 Waste of machines and electronic apparatus production. Group 32 Waste of production of equipment for radio, TV and other connections. Group 33. Waste of production of medical devices, measurement devices, optical devices, watches. Group 34 Waste of production of cars, trailers and half-trailers. Group 35 Waste of production of other transport equipment. Group 36 Waste of production of other industrial goods.</p> <p>List of classification groups of waste, created from provision of services, are presented below: Group 40 Waste of production and distribution of electric energy, gas, steam and hot water Group 41 Waste, obtained from extraction, purification and distribution of water. Group 45 Waste of construction works, destroying of houses and waste, created due to technogenic catastrophes (emergencies), natural catastrophes and events Group 52 Waste of trade. Group 60 Waste related to transportation services. Group 77 Waste of activities of institutions of public catering, technical services and fixing of the equipment, household waste and similar non-specific industrial waste. Group 85 Waste from the services of human health protection, veterinary services and other related investigations. Group 90 Secondary waste from provision of services of collection, elimination and processing of waste</p>		
Chapter II Specific laws and regulations that govern waste management	Sector	EU legislation	Ukrainian legislation
	<i>General waste management</i>	Directive 2008/98/EC of the European Parliament and of the Council as of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance), OJ L 312, 22.11.2008, p. 3–30	The Law on Waste as of 5 March 1998 No.187/98-BP with the amendments of 2002, 2005 and 2010
	<i>Import/Export</i>	Regulation (EC) No.689/2008 of the European Parliament and of the Council as of 17 June 2008 concerning the export and import of dangerous chemicals, OJ L 204, 31.7.2008, p. 1–35. Regulation (EU) No.649/2012 of the European Parliament and of the Council as of 4 July 2012 concerning the export and import of hazardous chemicals Text with EEA relevance, OJ L 201, 27.7.2012, p. 60–106	Decision of the Cabinet of Ministers of Ukraine No.1120 as of 13 July 2000 "On the approval of Regulations about the control for transboundary movements of hazardous waste and their recycling / removal and the Yellow and Green list of waste"
	<i>Landfill of waste</i>	Council Directive 1999/31/EC as of 26 April 1999 on the landfill of waste, OJ L 182, 16.7.1999, p. 1–19	Only in relation to radioactive waste – Order No.110 of the State Nuclear Regulatory Committee validating safety terms and conditions (licensing conditions) for carrying out activity for management, storage and burial of radioactive waste, NP 306.5.04/2.060-2002, with changes from 26 August 2005
	<i>Incineration</i>	Directive 2000/76/EC of the European Parliament and of the Council as of 4 December 2000 on the incineration of waste, OJ L 332, 28.12.2000, p. 91–111	Only in relation to radioactive waste - Order No.110 of the State Nuclear Regulatory Committee validating safety terms and conditions (licensing conditions) for carrying

			out activity for management, storage and burial of radioactive waste, NP 306.5.04/2.060-2002, with changes from 26 August 2005
	<i>Shipment/ Transport of waste</i>	Regulation (EC) No 1013/2006 of the European Parliament and of the Council as of 14 June 2006 on shipments of waste, OJ L 190, 12.7.2006, p. 1–98	Decree of Cabinet of Ministers of Ukraine No.733 as of 1 June 2002 on the approval of an Order and regulations for compulsory liability insurance of dangerous goods transportation entities against occurrence of negative consequences in transit of dangerous goods”; Regulations on dangerous goods carriage approved by the Council on Railway Transport of the CIS countries and adopted at XV meeting of Council on 5 April 1996; Order of the State Committee of Ukraine on regulatory policy and of the Ministry of Transport and Communication of Ukraine of 08.06.2001 No.85/363 “On the approval of License provisions for introduction of business activity on rendering a service for passenger and goods carriage by rail”; Directive of the Council 96/49/EU as of 23 July 1996 concerning the mutual recognition of member-states laws during the dangerous goods carriage by rail
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 does provide this?</i></p> <p>In accordance with the Order No.434 adopted on 5 November 2004, the Ministry of Environment Protection is the authorized central institution having plenary powers in the sphere of environment’s protection, ecological safety, nature reserves and hydro-meteorological activity. The main tasks of the Ministry are:</p> <ol style="list-style-type: none"> 1) ensuring the realization of the state policy in the sphere of environment’s protection, rational use, replenishment and conservation of natural resources (land, surface water, atmospheric air, forest, wildlife and vegetable kingdom, resources of territorial sea, continental shelf and the EEZ of the Ukraine) 2) carrying out environmental monitoring, <u>management of waste, pesticides and agro-chemicals</u>, ecological and radiation safety (within the proper sphere of competence), nature reserves management, formation of the national ecological network, hydro-meteorological activity, rational use on natural resources (but for subsoil). <p>In accordance with Order No.129/402 of the State Committee on Technical Regulation and Consumer Policy validating the Licensing terms and conditions for disinfection of materials and objects transferred through the state border of Ukraine and quarantine areas, the Ministry of Agrarian Policy shall be the licensing authority in the sphere of disinfection of materials and objects transferred through the state border of Ukraine and quarantine areas.</p> <p>Under Article 22 of the Law on Waste, the specially authorized executive body in the sphere of Waste Management (is the designated central executive authority in the field of waste management National Centre for Hazardous Waste Management) and its local authorities, State Sanitary and Epidemiological Service Ukraine, other executive agencies in accordance with their competence.</p> <p>The specially authorized central body of the executive power in the field of waste management and its local agencies are in charge of:</p> <ol style="list-style-type: none"> a) coordinating the work of other specially authorized governmental bodies in the field of waste management; b) state control over compliance with the environmental safety requirements; c) carrying out state environmental review of research, technological development and construction of enterprises, facilities, grounds, buildings and other designated places or objects for processing, recycling and disposal of waste; 		

- d) submitting to the Cabinet of Ministers of Ukraine new requirements on installation charges for waste disposal, approval of the national standards of waste management ;
- e) monitoring and certification of business entities activities in relation to waste's collection, processing, recycling and management;
- f) creation of analytical systems and data banks volumes on waste generation and waste management;
- g) establishment of operations in the field of waste management in accordance with the legal procedure;
- h) issuing permits for operations in the field of waste management (as amended by the Law No.3073-III as of 07.03.2002, Art.23 (g));
- i) issuing permits for cross-border transportation of dangerous waste (as amended by the Law No.3073-III as of 07.03.2002, Art.23 (c));
- j) approving limits for generation and disposal of waste;
- k) approving the placement of the objects on handling waste;
- l) control the assembly and maintenance of the register on waste facilities and waste disposal locations ;
- m) being involved in the development and approval of regulations governing waste management;
- n) elaborating accommodation facilities for management of hazardous waste and their transportation through the territory of Ukraine;
- o) conclusion, in accordance with the procedures established by law of Ukraine, international treaties on cooperation in the area of Waste Treatment and Control of Transboundary Movements of waste;
- p) ensuring the exchange of information with the relevant authorities of other countries and international organizations in the field waste management;
- q) approving the list of hazardous properties of waste in consultation with the State Sanitary and Epidemiological Service Ukraine, (as amended by the Law No.3073-III as of 07.03.2002, Art. 23 (n));
- r) performing the functions of the competent authority of the executive power, which provides the implementation of the Basel Convention on Control of Transboundary Movements of Hazardous Wastes and their disposal (as amended by the Law No.3073-III as of 07.03.2002, Art. 23 (o)).

In accordance with Article 20 of the Law on Waste the local state administrations have powers in relation to waste management:

- a) coordinate and promote entrepreneurship activities in the field of waste management ;
- b) control the use of waste given their resource value and safety requirements for health of the people and the environment;
- c) monitor the activities of management facilities waste;
- d) cooperate with local governments;
- e) develop schemes of settlements sanitation;
- f) compile and maintain register on formation, processing and recycling of waste, as well as waste management registry locations;
- g) organize the accounting of creation, treatment, disposal, recycling and waste management, its passportization (certification);
- h) ensure the elimination of unauthorized and uncontrolled dumping of waste on their own, or at authorized body, (as amended by the Law No.3073-III as of 07.03.2002, Art. 23 (m));
- i) facilitate clarification of the legislation on waste among population, creating the necessary conditions for encouraging the population's involvement in collecting and harvesting of certain types of waste as recycled materials, (as amended by the Law No.3073-III as of 07.03.2002, Art. 23 (h));
- j) suspend the permits on operating the facility on hazardous waste treatment, if it is performed in violation with the norms and rules of environment; (as amended by the Law No.3073-III as of 07.03.2002, Art. 20 (o));
- k) monitor the economic activities in the field of waste management in accordance with the law (as amended by the Law No.3073-III as of 07.03.2002, Art.20 (c));
- l) issuing permits for construction or reconstruction of the waste management facility in the relevant territory in order prescribed by law, (as amended by the Law No.3073-III as of 07.03.2002, Art. 20 (p));
- m) granting of permits for the facility management of hazardous waste on the territory concerned (as amended by the Law No.3073-III as of 07.03.2002, Art.20 (c)).

When did it begin to work/function? Indicate the financial assistance in this respect?

During the preparation of draft local budgets, local administrations make suggestions for fundraising required for activities in the field of waste management



Section III: Analysis of existing national waste management legislation

Theme 1 Scope	<p>The Law on Waste as of 5 March 1998 No.187/98-BP with amendments dated 2002, 2005 and 2010 is the main legal act in relation to waste management in Ukraine.</p> <p>In accordance with the Preamble, the Law on Waste determines legal, organizational and economic basis of the activity linked to the warning or reducing the amounts of formation of waste, its collection, transportation, storage, processing, utilization and removal, neutralization by burial, and also with prevention of negative impact of waste on the environment and health of persons on the territory of Ukraine.</p> <p>The legal framework provided by this Law defines the waste management functions as following:</p> <ul style="list-style-type: none"> • provision for complete collection, timely disposal and elimination of waste, as well as rules of environmental safety in waste treatment; • minimizing the waste establishment and reduction of its danger; • provision for complex use of material-raw resources; • support to maximum possible the waste utilization by direct recycling and alternative use of valuable waste resource; • provision for a safe elimination of waste which cannot be utilized by means of relevant technologies development, environmentally safe methods and means of waste treatment; • organization of control over locations and units of waste disposal in order to avoid their dangerous impact on environment and human health; • conduction of a number of scientific-technical and market researches to define the resource value of waste in order to use them effectively; • support to establishment of waste treatment units; • social protection of staff working in the field of waste treatment; • obligatory inventory of waste based on their classification and passportization; • creation of conditions for separate waste collection of household waste by introduction of social-economic mechanisms, directed to stimulate waste generators to collect them separately; • support for the involvement of non-state investments and sources of funding outside of the budget in the field of waste management. <p>It is important to note that the established legal framework does not have provisions addressing:</p> <ul style="list-style-type: none"> • implementation of the principle of responsibility of producer for collection of certain types of production after its use; • establishment in Ukraine of market principle of waste treatment as recyclables; • economic stimuli for increasing the volume of production of goods and products, made of recyclables
Theme 2 Definitions	<p>Definitions of waste and hazardous waste are provided by the Ukrainian Law “On Waste” as of 1998 (Article 1): Waste – any substances, materials and objects formed as a result of production process or consumption, as well as the goods (products) which have fully or partially lost the consumer properties and have no further use in place and of which their owner will, intends or shall get rid of by utilization or removal; <i>Remarks: “Disposal” means any operation, mentioned in division A of the Annex 1 to the Cabinet of Ministers of Ukraine Resolution No.1120 as of 13.07.2000. “Utilization” means any operation, mentioned in division of the Annex 1 of the same Resolution.</i></p> <p>Hazardous wastes – the waste having such physical, chemical, biological or other dangerous properties that create or could create considerable danger to the environment and human health and which need ad hoc methods to deal with them.</p> <p>This definition of the Hazardous Waste is more general and not so precise in comparison with the definition of Hazardous Waste provided by the Directive 2008/98/EC of the EU (Article 3). The Directive makes reference to a detailed Annex III with 16 properties that make a waste being hazardous.</p> <p>There is no definition of the pesticides waste in the Law “On Waste” as of 1998.</p> <p>However, the Law on Pesticides and Agrochemicals as of 1995 (as amended by the Law No 1628-IV (1628-15) as of 18 March 2004) provides in Article 1 definitions of pesticides and agrochemicals:</p> <p>Pesticides – toxic substances and their compounds or mixtures of substances of chemical or biological origin intended for destruction, regulation and suppression of pests, resulting in activities, which affect plants, animals, people, damages property, as well as rodents, weeds, wood, shrubs, clogging fish;</p>

	<p>Agrochemicals – organic, mineral and bacterial fertilizers, ameliorants chemical, plant growth regulators and other substances used to improve soil fertility, yield crops and improving crop quality products.</p> <p><i>Does the legislation provide any criteria/procedure when pesticides become waste pesticides?</i></p> <p>The legislation does not provide any specific procedures to indicate when pesticides would become waste (particularly, hazardous waste)</p>
Theme 3 Administrative and institutional structure	See Chapter III. Institution(s) involved in waste management (focus on pesticides)
Theme 4 Licensing	<p>There are a number of legal acts regulating licensing of activities in relation to hazardous waste and pesticides: the Law on Waste, the Law on Pesticides and Agrochemicals No.86/95-BP and Order No.129/402 of the State Committee on Technical Regulation and Consumer Policy validating the Licensing terms and conditions for disinfection of materials and objects transferred through the state border of Ukraine and quarantine areas, the Law “On Licensing certain types of business” No.36/2000.</p> <p>In accordance with Article 17 of the Law on Waste, industrial and commercial waste generators must have a license for operating in the field of dangerous waste treatment or for the operations related to collection of recyclables and permit for transboundary movement of dangerous waste.</p> <p>License for operating in the field of dangerous waste treatment, license for the operations related to the collection of recyclables, as well as the permit for transboundary movement of dangerous waste are issued by specially authorized central executive body determined by the Cabinet of Ministers of Ukraine. These activities’ practicing is also subject to compulsory insurance in accordance with specific legislative acts of Ukraine.</p> <p>The Law of Ukraine “On Licensing certain types of business” provides for specific norms on the license for economic activities on operation in the field of dangerous waste treatment, license for the operations related to collection of recyclables, permit for transboundary movement of dangerous waste, management’s liability, licensing agency enforcement powers in the licensing. Article 14 of this law provides that the license for engaging in certain business activities is issued for an unlimited period. The Cabinet of Ministers of Ukraine and/or the specially authorized licensing body may limit the license’s validity term for a certain type of economic activity, but this term may not be less than five years.</p> <p>Economic activities related to the pesticides and agrochemicals production, wholesale and retail shall be carried on only subject to licenses in the manner prescribed by law. (Article 9 of the Law on Pesticides and Agrochemicals, as amended by the Law No.1628-IV (1628-15) as of 18.03.2004).</p> <p>As per Order No.129/402 approved by Cabinet Ministers of Ukraine from 02.11.95 No.881, any entity holding the license shall keep records on availability and use of pesticides and agrochemicals, income and expenditure books, shall submit statistical reports for approval to the State Statistics Committee of Ukraine and shall keep forms according to the procedure of public accounting.</p> <p>In accordance with Order No.129/402 of the State Committee on Technical Regulation and Consumer Policy validating the Licensing terms and conditions for disinfection of materials and objects transferred through the state border of Ukraine and quarantine areas, the Ministry of Agrarian Policy shall be the licensing authority in the sphere of disinfection of materials and objects transferred through the state border of Ukraine and quarantine areas.</p> <p>Further in par. 1.6 of the Order No.129/402 it is provided that the licensing authority in the sphere of economic activities on disinfection of regulated materials is the Ministry of Agrarian Policy of Ukraine</p>
Theme 5 Trans- boundary movement, import/ export	<p>The Ukrainian Law “On Waste” as of 1998 provides definition of transboundary shipments of waste, meaning waste transportation to the territory or through Ukrainian territory or through the territory of another State. However, this law does not contain provisions in relation to transboundary shipments of waste.</p> <p>There is national definition of hazardous waste used for the purpose of transboundary movements of waste in Ukraine: “Hazardous waste” means the waste that:</p> <ul style="list-style-type: none"> - is included into division A of the Yellow List of waste, approved by the Cabinet of Ministers of Ukraine, and

	<ul style="list-style-type: none"> - has one or more hazardous properties mentioned in the List of hazardous properties, approved by the Ministry of Environment's Protection, and - is included into the Green List, which is approved by the Cabinet of Ministers of Ukraine, in case if it contains materials, mentioned in the Annex 2 to the Resolution No.1120 of Cabinet of Ministers of Ukraine as of 13.07.2000, in such quantities that can reveal hazardous properties described in the List of hazardous wastes mentioned above. <p>Ukraine regulates/controls additional wastes as hazardous that are not included in Art. 1 (1)a of the Basel Convention and would be controlled for the purpose of transboundary movements pursuant to Art. 1 (1)b of the Convention.</p> <p>60 Petrol sludge containing lead; 79 Residues from operation on the industrial wastes disposal; and 80 Wastes from production, receiving and use of photo-chemicals or materials for treatment of photochemicals.</p> <p>Decision of the Cabinet of Ministers of Ukraine No.1120 as of 13.07.2000 "On the approval of Regulations about the control for transboundary movements of hazardous waste and their recycling/removal and the Yellow and Green list of waste" is according with the Basis of the unit A the list A of Basel convention (the Annex VIII to Basel Convention).</p> <p>In accordance with Art. 1 (1)(a) of the Basel convention the waste listed in this section is hazardous. In addition to the listed ones, there are included another three positions (serial numbers 60 – Gasoline sludge which contains lead Y31, AC040; 79 – the Remnants from operations on removal of industrial wastes Y18; 80 – Waste products of manufacture, reception and application of photochemicals or materials for processing photographic materials Y16, AD090). According to the list A, 43 – Waste products that contain, consist or are polluted with sludge of anti-detonation compounds with addition of lead A3030, RC030.</p> <p>Ukraine requires special consideration for the following waste(s) for the transboundary movement: To the division "Wastes requiring special consideration" (Annex II to the Basel Convention) two more items are included: 83 Sewerage sludge AC270; and 84 Pneumatic tires waste B3140 GK020 TC401220.</p> <p>It should be mentioned that before 2002 in accordance with the Law of Ukraine No.187/98-BP "On wastes" as of 5 March 1998 (Article 36) the import of waste in Ukraine with the aim of their storage or disposal was forbidden. However, Article 36 was repealed by Law No.3073-III as of 07 March 2002.</p> <p>Therefore, currently Ukraine does not have restrictions on import of hazardous waste and other type of waste for final disposal.</p> <p>Ukraine has no restrictions on the import of hazardous waste and other type of waste for recovery. Ukraine has no restrictions on the transit of hazardous waste and other type of waste. No additional restrictions in comparison with the Basel Convention procedure.</p> <p>According to Article 16 of Decision of the Cabinet of Ministers of Ukraine No.1120 as of 13.07.2000, the import of hazardous waste to Ukraine is forbidden for the purpose of their storage or burial. Hazardous waste can be imported only under conditions of presence of the written agreement of the Ministry of the Environment Protection of Ukraine. According to Article 20 of the same Decision of the Cabinet of Ministers of Ukraine, the Ministry of the Environment' Protection of Ukraine can give the written agreement on import of hazardous waste in the case of certain conditions observance. One of such conditions are:</p> <ul style="list-style-type: none"> • The exporting country is a party to the Basel Convention or the corresponding international agreement about trans-boundary movement of hazardous waste is made between Ukraine and that country; • The exporting country has no technical opportunities and necessary capacities for removal and disposal of such waste products ecologically or such waste can be used as secondary raw material in Ukraine
Theme 6 Economic initiatives	<p>The Ukrainian Law on Waste suggests three ways of financing new waste management activities:</p> <ul style="list-style-type: none"> • Offering to the enterprises the opportunity to use a part of funds for financing actions towards waste utilization and reduction of volumes of their creation based on grounded investment projects and products, instead of paying full charges for waste allocation (Art. 38); • Offering special state subsidies to reduce percentage for bank loans, related to investments directed to waste utilization and production of the relevant equipment (Art. 40) • Offering support for the involvement of non-state investments and other sources outside of state budget in the field of waste management (Art. 5). The latter sources of investments financing was added with

amendments of 2010.

However, it should be noted that conversion of charges into environmental actions does not have legal scheme of application in Ukraine yet.

“Polluter Pays” principle in the Ukrainian Law

Commercial and industrial waste generators are obliged to reimburse the harm caused to the environment, human health and property, due to the violation of established norms on waste treatment according to the Ukrainian legislation (Art. 43). However, there are no implementing regulations with clear methodology on how to calculate harm caused to the environment, human health, etc. So, in practice this provision of the Ukrainian Law on Waste is not working.

The legal requirements in relation to waste are stated in the Decree No.1070 of the Cabinet of Ministers of Ukraine as of 10.12.2008 on the “Rules of Service Provision to Remove Household waste”. Among them:

- Necessity to have an agreement between service supplier and natural persons or legal entities;
- Service supplier is identified for state owned entities – on the basis of tender conducted according to the Order, approved by the Decree N° 631 of the Cabinet of Ministers as of 21.07.2005; for private entities – by local authorities.

There are special norms of service provision in relation to waste collection and removal, which are revised each 5 years.

However, there are no provisions on the procedure and possibility to complain about the bad quality of the services provided by waste management companies.

The requirements of industrial and commercial waste generators are stated in Art. 17 of the Law on Waste.

- To avoid creation and to reduce the volume of waste’s creation;
- To make provisions for collection and utilization of the used packing materials and boxes at the location of the enterprise or to make agreements with the relevant organizations regarding provision of such services;
- To identify, together with state authorities, the composition, features and level of danger for environment and human health of the established waste;
- To make register of number, type and composition of the waste that was established, collected, transported, conserved, processed, utilized, eliminated and removed; to provide statistic reporting;
- To make provisions for complete collection, proper conservation; Not to destroy or spoil the waste, for utilization of which, relevant technology exists in Ukraine;
- To participate in the construction of the waste facilities;
- To conduct organizational, scientific and technological actions for maximum utilization of the waste, its transfer to other users, dealing with its utilization; Provide, on its own expense, for environmentally sound elimination of the waste which cannot be disposed;
- To avoid waste mixture, if it is not envisaged by the existing technology and do not make waste treatment complicated, unless it is proved that such mixture is for the sake of environmental safety;
- To avoid collection and elimination of waste in illegal places;
- To control the places for allocation of their own waste;
- To pay in timely manner the allocation for waste;
- To provide information to state environmental authorities regarding the waste and relevant activities, including actions on preventing illegal waste disposal;
- To appoint responsible persons in the field of waste management;
- To invest in development and implementation of Action Plans in the field of waste management;
- To reimburse the harm caused to the environment, human health and property, enterprise and organizations due to violation of established norms on waste treatment according to the Ukrainian legislation
- To provide for professional training, improvement of qualification and attestation of specialists in the field of waste management;
- To have license for operation in the field of dangerous waste treatment or for the operations related to collection of recyclables and permit for transboundary movement of dangerous waste;
- To have Emergency Action plan agreed with executive bodies in case of dangerous waste;
- To envisage in the agreements on goods import to Ukraine the necessity of utilization or removal from Ukraine the used packing materials and tare;

	<ul style="list-style-type: none"> To have a special permit during planning of construction or reconstruction of waste facilities; To have permit for use of dangerous waste facility. <p>In relation to the private sector participation in waste management, the legal framework does not create enforceable provisions. It is not clear if there is motivation of industrial and commercial waste generators to comply with the requirements since there are no subsidies for separate waste collection or taxes for waste mixture. In the absence of efficient and effective control, the provisions of the Law on Waste in Ukraine have rather declarative character</p>
Theme 7 Transport	<p>In accordance with Article 34 of the Law on Waste: Transportation of hazardous waste is allowed only in the presence of the passports and licenses for handling as per the law on the transport of dangerous goods. Transportation of hazardous waste is subject to liability insurance for losses of the carrier that may be incurred during transportation.</p> <p>The transport of dangerous goods in the TRACECA Corridor countries (Ukraine is one of them) is regulated by a number of laws and regulations, as well as international agreements. Ukraine has the following laws and regulations in relation to the transportation of dangerous goods:</p> <ul style="list-style-type: none"> Law 1955-IV "On freight forwarding activities", from 01.07.2004; Law № 1644-III "On carriage of dangerous goods" from 06.04.2000; European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) from 1957 to which Ukraine acceded in 2000; Safety regulations as well as emergency operating order with dangerous goods when transporting them by rail; Dangerous Goods Transport regulations to the Agreement on International Freight Traffic – SMGS, Appendix 2; Regulations on Dangerous Goods carriage by marine transport and rail. <p>According to the EU project "Regulation on the Transport of Dangerous Goods along the TRACECA Corridor" in Ukraine in 2007 over 90% of the regulations have been in line with the international requirements.</p> <p>According to the Decree №440 of Cabinet of Ministers of Ukraine as of 1995, the Ministry of Environment of Ukraine is in charge of all questions concerning issuance of permission for the transportation of dangerous goods, with the compulsory cooperation with the Ministry of Transport and Communication.</p> <p>At issuing licenses, as well as at the control of license's provisions fulfilment by legal entities for securing the safety during dangerous goods transportation by rail, the following regulations have to be considered:</p> <ul style="list-style-type: none"> Decree of Cabinet of Ministers of Ukraine №733 as of 01.06. 2002 on the approval of an Order and regulations for compulsory liability insurance of dangerous goods transportation entities against occurrence of negative consequences in transit of dangerous goods"; Regulations on dangerous goods carriage approved by the Council on Railway Transport of the CIS countries and adopted at XV meeting of Council on 5 .04.1996; Order of the State Committee of Ukraine on regulatory policy and of the Ministry of Transport and Communication of Ukraine as of 08.06.2001 №85/363 "Concerning the approval of License provisions for introduction of business activity on rendering a service for passenger and goods carriage by rail"; <p>Directive of the Council 96/49/EU as of 23.07.96 concerning the mutual recognition of states-members laws during the dangerous goods carriage by rail</p>
Theme 8 Labelling requirements	See above – information in relation to transportation of dangerous goods
Theme 9 Packaging and containers	<p>See above – information in relation to transportation of dangerous goods.</p> <p>There are no national specific provisions with the requirement for containers and packaging similar to Order No.110 of the State Nuclear Regulatory Committee validating safety terms and conditions (licensing conditions) for carrying out activity for management, storage and burial of radioactive waste, HP 306.5.04/2.060-2002, with changes from 26 August 2005</p>

Theme 10 Emergency procedures	<p>The Ukrainian Law on Waste does not contain specific provision in respect of the emergency procedures. Only Article 24 obliges the business that have at least one item of hazardous waste to:</p> <ul style="list-style-type: none"> • ensure prevention of contamination of the surrounding environment, and in the event of a pollution – eliminate pollution and its consequences for the environment and human health; • take measures aimed at preventing accidents, limitations and clean-up, as well as protect people and environment from their effects; • report the accident which occurred on the specified object to the executive government, local authorities and population; as well as to undertake actions in order to eliminate the consequences of the accident
Theme 11 Disposal obligations	<p>In accordance with Article 15 of the Law on Pesticides and Agrochemicals, the unregistered, expired or illegal pesticides and agrochemicals, as well as containers from them are subject to removal, disposal, destruction and/or disposal, in the manner prescribed by the Cabinet of Ministers of Ukraine.</p> <p>The control over the disposal obligation is the responsibility of the Commission of Chemical Security in the Ministry of Ecology and Natural Resources (Order No.434 adopted on 5.11.2004 on the powers of the Ministry of Environmental Protection).</p> <p>However, no secondary legislation is found for the assessment</p>
Theme 12 Incineration	<p>No specific provisions in relation to incineration are found in the legal acts of Ukraine in relation to waste</p>
Theme 13 Recording, monitoring, and reporting	<p>Monitoring</p> <p>Monitoring of the formation, storage and waste management is regulated by Article 29 of the Law on Waste: The specially authorized executive bodies in the field of environmental protection and nuclear security, as well producers of waste and owners do monitor places of formation, storage and waste disposal in order to identify, predict, prevent and overcome the impact of waste on environment.</p> <p>Monitoring of the formation, storage and disposal of waste is part of a unified system of public monitoring of environment.</p> <p>In accordance with Article 20 of the Law on Waste the local state administrations are in charge of the following in the sphere of waste management:</p> <ol style="list-style-type: none"> a) coordinate and promote entrepreneurship activities in the field of waste management ; b) control the use of waste given their resource value and safety requirements for health of the people and the environment; c) monitor the activities of management facilities waste; d) cooperate with local governments; e) develop schemes of settlements sanitation; f) compile and maintain register on formation, processing and recycling of waste, as well as waste management registry locations; g) organize the accounting of creation, treatment, disposal recycling and waste management, its passportization (certification); h) ensure the elimination of unauthorized and uncontrolled dumping of waste on their own, or at authorized body, (as amended by the Law №3073-III as of 07.03.2002, Art. 23 (m)); i) facilitate clarification of the legislation on waste among population, creating the necessary conditions for encouraging the population's involvement in collecting and harvesting of certain types of waste as recycled materials, (as amended by the Law №3073-III as of 07.03.2002, Art. 23 (h)); j) suspend the permits on operating the facility on hazardous waste treatment, if it is performed in violation with the norms and rules of environment; (as amended by the Law №3073-III as of 07.03.2002, Art. 20 (o)); k) monitor the economic activities in the field of waste management in accordance with the law (as amended by the Law №3073-III as of 07.03.2002, Art.20 l); l) issuing permits for construction or reconstruction of the waste management facility in the relevant territory in order prescribed by law, (as amended by the Law №3073-III as of 07.03.2002, Art. 20 (p)); m) granting of permits for the facility management of hazardous waste on the territory concerned. (as amended by the Law №3073-III as of 07.03.2002, Art. 20 l).

	<p>During the preparation of draft local budgets, local administrations make suggestions for fundraising required for activities in the field of waste management.</p> <p>Reporting</p> <p>Order No.129/402 of the State Committee on Technical Regulation and Consumer Policy validating the Licensing terms and conditions for disinfection of materials and objects transferred through the state border of Ukraine and quarantine areas provides:</p> <p>2.1.2. Any entity shall keep records on availability and use of pesticides and agrochemicals in the income and expenditure books and submit statistical reports for the approval by the State Statistics Committee of Ukraine, use forms according to the procedure of public accounting, approved by Cabinet Ministers of Ukraine as of 02.11.95 No.881</p>
<p>Theme 14 Offences and penalties</p>	<p>Article 42 “Offences in the field of waste management” of the Ukrainian Law on Waste provides:</p> <p>Persons found guilty of violating the legislation on waste are subject to disciplinary, administrative, civil or criminal laws, in particular:</p> <ul style="list-style-type: none"> a) violating the established procedure for waste management that caused or may cause environment pollution, direct or indirect harmful effects to human health and economic losses; b) unauthorized placement or removal of waste; c) violation of Ukrainian regulation of import, export and transit through its territory of waste as secondary raw material; d) failure to comply with the orders and regulations of the state control and supervision bodies in relation to the operations of waste management and places of their removal; d) concealment, confusion or refusal to provide full and accurate information at the request of officials, citizens and associations concerning safety of waste handling, including its emergency discharges and related impacts; e) concealing the excess of the established limits on the amount of generation and disposal of waste; f) mixing or disposal of waste in Ukraine failing to comply with the appropriate technology or without authorization provided by specially authorized executive body in the field of the environment protection; g) breach of the rules of the initial registration and control over the operations of waste management; h) violating the terms of submission and reporting procedures on waste creation, use, disposal and management; i) non-compliance with waste management (during its collection, transportation, storage, treatment, recycling, clearance, removal and disposal), that caused negative environmental, health and epidemic effects or caused material or moral damage; j) transfer of waste in violation of established rules for storage, processing or removal by the companies or organizations that do not have a permit to carry out these operations; k) violation of the rules on usage plants and plants for treatment and disposal of waste, and as sites for storage or disposal of industrial, household and other waste (landfill, sludge fields ash dumps, etc.); l) production from or use of waste without relevant regulatory, technical and technological documentation, agreed in due course; m) failure to comply with the requirements on import of waste as secondary raw material on the territory of Ukraine; n) late payments for waste disposal; o) violation of the Safe Transport of Dangerous Waste. <p>Laws of Ukraine may establish liability for other violations in relation to the legislation on waste.</p> <p>The Law on Pesticides and Agrochemicals No.86/95-BP – Article 20</p> <p>Violation of legislation on pesticides and agrochemicals is punished according to civil, disciplinary, administrative or criminal liability under applicable law.</p> <p>The following are considered the infringements of the law:</p> <ul style="list-style-type: none"> • Concealment or misrepresentation of information that could cause or caused danger to life and human health, as well as property and the environment; • Non-compliance with standards, sanitary norms and rules and other regulations in the manufacture of pesticides, agrochemicals and hardware applications; • Exceeding the permissible level of contamination by pesticides and agricultural chemicals of the agricultural raw materials, feed, food, soil, water, air; • Violation of regulations and sanitary norms and rules on transportation, storage, trade and use of pesticides and agrochemicals;

	<ul style="list-style-type: none"> • Application of pesticides, agrochemicals and/or technical facilities which have not passed state testing and registration; • Initiate recycling, destruction of agricultural raw materials and food products that do not meet the requirements for pesticides and agrochemicals; • Non-fulfilment of legitimate demands of officials exercising state supervision and control; • Knowingly use counterfeit pesticides and agrochemicals. <p>The legislation of Ukraine may establish liability for other types of violations of laws of Ukraine on pesticides and agrochemicals</p>
Theme 15 Official controls and inspection	<p>In accordance with Article 20 of the Law on Waste the local state administrations have powers in relation to waste management:</p> <p>a) coordinate and promote entrepreneurship activities in the field of waste management ;</p> <p>b) control the use of waste given their resource value and safety requirements for people's health and the environment;</p> <p>c) monitor the activities of waste management facilities; etc.</p> <p>Monitoring and supervision in the field of waste management is regulated by Article 37 of the Law on Waste: State control and supervision in the field of waste management is carried out by specially authorized central executive authorities in the field of waste management, and other specially designated executive power in the field of waste management.</p> <p>Primary production control in the field of waste management is done by the waste producers, within the limits of their competence.</p> <p>Public control in the field of waste management is carried out by public inspectors for environmental protection within the limits of the law.</p> <p>General Prosecutor of Ukraine and its subordinate prosecutors supervise the compliance with the laws in the field of waste management, within the authority provided by law.</p> <p>The Law on Pesticides and Agrochemicals No.86/95-BP – Article 16:</p> <p>Public policy in the sphere of activities related to pesticides and agrochemicals, implemented by the Cabinet of Ministers of Ukraine, is vested with the specially authorized central body of executive power on issues of Environmental Protection, specially authorized central executive authority on Agricultural Policy, specially authorized central executive body on Health issues and other executive agencies under their jurisdiction</p>
Theme 16 Research and development	<p>The Law on Waste says that specially authorized state executive environmental body, state sanitary-epidemiological service of Ukraine, their local branches and other state authorized bodies in the field of waste management should provide to other state executive bodies, local authorities, enterprises and institutional, citizens and NGOs the information regarding the location of waste collection and elimination facilities, their impact on environment and human health (Article 30)</p>

Section IV: Information supplementing legal analyses – from other Experts

Topic 1 – Pesticides Manufacturing Industry

Are there pesticides manufacturers in the country?

Three licensed manufacturers, total production is about 6000 MT per annum.

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

- According to existing legislation the overdue pesticides have to be withdrawn from the market. The big agrochemical companies are collecting the overdue pesticides for further export for disposal to EU.
- Due to deregulation process the norm on prepaying on the customs clearance stage for further the collection and utilization of packaging (including pesticides containers) has been taken out from the legislation. There is no control on empty containers management. Due to the buying of pesticide empty containers by the counterfeiters the big companies have started to establish the mechanism on their collecting by distributors and WM companies, however it is not effective.
- Due to the lack of temporary storages for detained counterfeit pesticides the Industry is planning to establish the network of such small secured warehouses alongside the country.

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

Majority of the multinational companies operating (both original and generic pesticides manufacturers) on the Ukrainian Plant Protection Products market are united in two associations: Agrochemical Committee of European Business Association and Ukrainian Agribusiness Club. Members of both organizations agreed the standards for pesticides waste management in line with the national legislation and their corporate sustainable development standards.

Whether there are any measures taken by industries/waste generators in order to reduce or eliminate pesticides waste generation?

No extra measures except collection of overdue pesticides and assistance in investigation on circulation of illicit pesticides

Topic 2 – Management of Obsolete Pesticides Stocks

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

Yes, Please see details in Part II, Section I

2. Inventories
4. Inventory and Environmental Assessment
5. Safeguarding
6. Storage and transport
7. Disposal

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

See details in Part II, Section I, 2 Inventories; under 2.2 Data sources and existing inventories (only Obsolete Pesticides)

Topic 3 – Methods used for treatment of pesticides wastes

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

Export and disposal to EU in dedicated hazardous waste incinerators

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 (there is a licensed company, however the incinerator is not operational).

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

A number of plants are under development, see Part II, Section III under 3. Planned facilities

Topic 2 – Storage facilities

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

No collection centres were constructed, see also under Part II, Section II, 6. Storage and transport.

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

No, as there are no final storages in the country

Topic 3 – Recycling facilities

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

Empty Container Management Strategy (ECMS) has not been properly established. Collection of empty containers by the licensed companies for utilization under the Order of Cabinet of Ministers No.915 (Utilization of packaging of imported goods) is not feasible. See also Part II, Section III, 8. Containers

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, see also answer under Topic 1.

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

There are plans, see also under Part II, Section III under 3. Planned facilities. Initiators are in touch with investors and there are initiatives on-going

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

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

1. Institutional arrangements

Responsibilities in the country

Inter-ministerial Steering Committee for Obsolete Pesticides established?

Yes (Called as Inter-ministerial work group on pesticide management, dealing with all aspects on pesticide activity)

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

Established in 2014, meets 4 times per year

National Body Representation	Responsible Ministry	Contact person (name/contact details)	Activity and outcome	No.of reference/ annex if needed
SAICM focal point	MENR			
GEF Focal Point /Coordinating Unit	MENR	Mr. Olexandr Tarasenko o.tarasenko@menr.gov.ua Head of Dept. of International Cooperation		
Stockholm Focal Point /POP Centre	MENR	Mr. Eugene Fedorenko Director of the Department of Ecological Security		
Basel Focal Point	MENR	Mr. Eugene Fedorenko Director of the Department of Ecological Security		
Rotterdam Focal Point	DNA-MENR DNA-MHP	OCP has not been reappointed Mr. Alexandr Kravchuk Deputy Chief Sanitary Doctor		
FAO National Focal Point	MAPFU	Ms. Kateryna Logginova Aide to the Deputy Minister		
EU/other project implementation units for hazardous waste	MENR	Mr. Eugene Fedorenko Director of the Department of Ecological Security		
Inter-departmental committees				

Other national coordinating body	Codex Alimentarius (National Commission)	Mr. Nikolay Prodanchuk Chairman		
National waste focal point	MENR	Mr. Eugene Fedorenko Director of the Department of Ecological Security		
PRTR Protocol				
Other information: Due to political situation the new focal points will be appointed in June – July 2014				

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)

As a condition to implement the Stockholm Convention as well as due to the commitment of Ukraine to solve the problem of OPs, the Cabinet of Ministers of Ukraine (CMU) carried out several projects and developed the National Implementation Plan on Stockholm Convention on POPs. The latest version of NIP was approved by the CMU on the 18th of September, 2011. It is considered that Ukraine completed national inventory. It is done in accordance with National Guidelines, but neither PSMS nor any other International system is used. However, still some small amounts of OPs are used to be found on private yards. New waste appeared due to illegal import and used containers, which is not included into inventory and still need to be determined

2.2 Data sources and existing inventories (only Obsolete Pesticides)

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

An inventory on oblast level has been done by Commissions under Oblast Administrations. Traditionally these Commissions were chaired by Deputy Heads of Oblast Administrations and included specialist from Departments of Agriculture, Ecology and Emergency Situations, representatives of police and local (district or village) authorities. As per the latest update (middle 2012) there are about 7,500 MT of OPs, stored in about 850 warehouses. The quality of inventory is moderate

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)

National Implementation Plan was prepared in the frames of UNEP/GEF project «Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs) - National Implementation Plan for Ukraine» in 2003-2007. Date of official submission to BRS Secretariat – January 21, 2016

2.4 NIP update (specifically on new POPs)

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

The latest update of NIP was approved by the Cabinet of Ministers in November 2011. NIP update project to be started in 2nd quarter of 2016

2.5 UNITAR Chemicals Profile

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

UNITAR Chemicals Profile has not been developed

2.6 National Pesticides/POPs inventory

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

Any other inventories completed by independent NGOs had not been done on the National level and were included into latest updated version of NIP

2.7 FAO PSMS inventory

FAO PSMS Inventory system is not used in Ukraine

Other information:



Food and Agriculture
Organization of the
United Nations



3. Environmental Assessment

If references needed please provide in the concerned Annex

3.1. National requirements

EIA = Environmental Impact Assessment etc.) + national experience

The Environmental Assessment and Environmental Management Plan was prepared in the frames of UNEP/GEF project «Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs) - National Implementation Plan for Ukraine» in 2003-2007. The local responsible Agency was Ministry of Ecology and Natural Resources. The relevant specific information has been collected at district level, including general, weather, natural disaster risks, hydrology, soil, groundwater, flora, fauna, and protected areas information. Existing EMP does not cover any of polluted sites, the full inventory of polluted sites does not exist as well

3.2. International experience

non-FAO – WB, UNDP CESA etc.

No

3.3. Capacity government and private to develop

Are there consultants or government trained people?

There are few National Academy of Science Institutes dealing with EA/EMP (e.g. Institute of Geochemistry of environment). Quite a lot of experts are internationally accepted or trained

3.4. FAO stages in Environmental Assessment (EA) and Environmental Management Plans (EMP) experience from EMTK v 3

(Environmental Management Tool Kit for Obsolete Pesticides)

FAO EMTK is not used in Ukraine

Other information:

Traditionally the Institutes of NANU are developing EMP only for particular sites, like HCB polygon in Kalush or DDT storage in Altestove. General EMPs in the National technical regulations (Reglaments) are poor

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 Commissions of Oblast Administrations exist in any oblast and are fully operational (except oblasts in the Eastern part of Ukraine and Crimea – due to political situation)
4.2 All managers/coordinators/Field people in place and operational Minimum 2 managers and 3 trained field people are fully operational in each oblast
4.3 All Field teams established and operational All Field teams have been established and are fully operational
4.4 All Inventory data management people in place and operational No Inventory data management teams exist on the National level. Information is available in only paper reports from oblasts and is used for accumulation in MENR
4.5 National/Regional Inventory updated Latest update of National Inventory was completed in the middle of 2012
4.6 National Pesticides/POPs Inventory established The national inventory was completed within the frames of UNEP/GEF project on facilitating development of NIP in 2003-2009. In parallel, within national reporting system, up to the year 2014 local administrations provided the information to the Ministry of ecology and natural resources about the existing stocks, including newly discovered, and their locations. In the beginning of 2017 NIP Update project was submitted to the GEF
4.7 Contaminated Sites Register Officially does not exist
Other information: Contaminated Sites Register officially does not exist. Limited information is available in the Department of Environment Security of MENR, Institute of Geochemistry of Environment of NANU and Company – Contractor of POPs export for disposal

5. Safeguarding

If references needed please provide in the concerned Annex

5.1 National projects

Over the past 10 years, there have been conducted a series of safeguarding activities in the process of repackaging, transportation and exporting to EU for disposal of obsolete pesticides. About 52,000 MT of POPs were repacked, transported for disposal to EU and were safely disposed

5.2 International projects

No International projects

5.3 FAO projects

No FAO projects

Other information:

Safeguarding measures are regulated by National regulated documents (reglements). All works done by state or oblast budget are regulated by Law of State Budget. However both these documents quite often are controversial to international practice. E.g.: if the Contractor by Contract is forced to repackage and export OPs only, the old packaging materials, like steel barrels, are not collected and safely packed. Another example is that if by contract the Contractor has to repack only part of the existing waste, the residue will stay unpacked, because by budget no extra funds are available

6. Storage and transport

Packaging / Containerization / Storage / Transportation

6.1 Transport regulations

In-country transportation planning competences available?

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

Quite a lot of national licensed transport operators and ADR-licensees. Route planning with notification to traffic police is a must

6.2 Driver regulations

Driver registration

Drivers should pass special tests and instructions on a regular basis

6.3 Storage regulations

(Seveso – off and on site emergency planning)

No collection centres were constructed, therefore no emergency plans were developed. For old storages no emergency plan were developed as well, except some preventive measures developed in the territorial bodies of State Service of Emergency Situations

6.4 Storage capacity

Private or government, collection centres available, (e.g. responsible, no of suitable collection centres identified)

No collection centres available

6.5 Incident reporting and accidents

Incident reporting is regulated by the procedures and documents developed by SSES (State Security and Defence Council) and Criminal Code of Ukraine

Other information:

Traditionally the safeguarding measures are developed directly by the Contractor connected with the transportation company. Waste is usually packed directly in export accepted UN-standard package and then – collected by the licensed truck directly for export

7. Disposal

7.1 National experience

Technology selection

Transboundary transport under Basel Convention

National transport

Disposal capacities in Country

(e.g. type and no of disposal facilities, (landfill/destruction) permits, quality and standards applied (national/international), ownership (public/private), contact details)

Project examples

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

No existing technologies up to now. There were few attempts of development local incinerators; however all of them were banned by ecology inspection. Cement kilns are not fully equipped for POPs incineration, majority of kiln owners disagree with a proposal of incineration of toxic wastes. Up to now national strategy has been the disposal in EU

7.2 International experience

Technology selection

High-temperature incineration (in EU).

Transboundary transport under Basel Convention

Local ADR-licensed carriers, transport docs – in accordance with Basel requirements.

National transport

Same local ADR-licensed carriers

7.3 Experience with FAO

No

Other information:

Since 2007 Ukraine has started the program on exporting obsolete pesticides to EU for incineration. It was developed based on National Implementation Plan for Ukraine for Stockholm Convention on POPs, which final version was submitted to the Government on the 18th of September 2011, and strictly in accordance with the regulations of Basel Convention on Transboundary Movement of Hazardous Waste. It began by the first exports of the private Zaporozhye-located company “Dynamyka”, followed by state-owned “National Centre for Hazardous Waste Management” (NCHWM), and then, after its liquidation – by the subsidiaries of Israeli company “S.I. Group (Consort)” Ltd.

In 2007-2010 export operations were funded from the State budget, in 2011-2012 – both from the State and oblasts budgets. The Program is on-going and should be completed by the end of 2015. Relevant funds are allocated both in the State and Oblasts budgets. Total quantity of exported POPs (including HCB and MNCB) – about 52,000 MT, residue of OPs – about 7,500 MT. Newest update in November 2014: 11,000 MT



8. Containers
<p>8.1 National experience Empty Container Management Strategy (ECMS) has not been properly established. Collection of empty containers by the licensed companies for utilization under the Order of Cabinet of Ministers No.915 (Utilization of packaging of imported goods) is not feasible</p>
<p>8.2 International experience <i>(e.g. Priorities on containers in NIP Action Plan)</i> According to the resolution of the meeting of National Stakeholders (25.04.2014) the development of ECMS is one of the national top-priorities</p>
<p>8.3 FAO supported plan Do not exist</p>
<p>8.4 Amount and type of empty containers/packaging materials? <i>(e.g. materials recycling in types, amounts)</i> About 5,000 MT of different sort of empty containers per annum (majority is made from plastic)</p>
<p>8.5 Collection Centres for empty containers? <i>(e.g. number of centres, responsibility, compliancy with FAO guidelines)</i> Do not exist</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 /Annexes
		volume, tonnes/year	volume, tonnes	
I. Summary for all waste streams	Hazardous waste	419 Mln	12.51 Billion	National report of MENR
A. Agricultural chemical waste: (see also parts already been filled in in the benchmarking section)				
1. Obsolete pesticide waste	Updated in November 2014		11,000	
2. POPs pesticide waste: <i>aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene (HCB*), mirex, toxaphen, chlordane, alpha hexachlorocyclohexane (a-HCH¹)*, beta hexachlorocyclohexane (b-HCH)*, lindane, pentachlorobenzene*</i>				
3. New pesticides waste <i>(incl. fake (counterfeit) pesticides)</i>		About 20,000		
4. Empty containers waste		About 5,000		
5. Contaminated sites				
a. Burial sites (polygons)			5 (pcs)	
b. Storage sites	Pesticides and POPs contaminated sites		4,500 (pcs)	
c. Usage sites <i>(airfields, formulation plants etc.)</i>			6 (pcs)	
B. Industrial chemicals:				
1. POPs <i>a. PCBs, HCB*, hexabromobiphenyl (HBB), hexabromodiphenyl ether and heptabromodiphenyl ether, pentachlorobenzene*,</i>	a) PCB b) No statistics on brominated chemicals c) No statistics on fluorinated chemicals		About 8,000 No statistics No statistics	

¹ HCH is often used in Russian as HCCH

<p><i>perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, tetrabromodiphenyl ether and pentabromodiphenyl ether (penta-BDE)</i></p> <p>b. <i>brominated industrial chemicals</i></p> <p>c. <i>Fluorinated industrial chemicals perfluorooctane sulfonyl fluoride (PFOS) and its salts and perfluorooctane sulfonyl fluoride (PFOSF)</i></p>				
<p>2. Contaminated sites <i>e.g. Contaminated containers, transformers and equipment</i></p>	<ul style="list-style-type: none"> • POPs contaminated sites (same as under 5b) • PCB containing capacitors • PCB containing transformers 		<p>about 4,500 (pcs)</p> <p>about 200,000 (pcs)</p> <p>about 5,000 (pcs)</p>	
<p>3. Oily wastes <i>e.g. non-POPs production waste, lagoons of sediments and sludges, solvents, waste lubricating oils</i></p>	<ul style="list-style-type: none"> • Used oils • Used Chemical catalyzers • Chemical sludge and residues 	<p>39,900</p> <p>1,300</p>	<p>3,201,700</p>	
<p>4. Inorganic wastes <i>Solid, liquid and sludge inorganic waste (often in many countries with mining activities and metal industries)</i></p>	<ul style="list-style-type: none"> • Extractive waste • Processing industry waste 		<p>322 Mln</p> <p>75 Mln</p>	
C. By-products				
<p>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> <u>Contaminated Sites and Hotspots:</u> <i>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></p>	<p>Quantity of dioxins. The dioxins quantity is indicated as per NIP and based on the data collected in 2002. Data quality can be considered as "poor"</p>		<p>1,451 TEQ</p>	<p>NIP 2002</p>

2. a-HCH*, b-HCH* (being generated from the Lindane production) and pentachlorobenzene*	There are no statistics on new POPs available, but the Ministry of Ecology and Natural Resources is planning to start the accounting of new POPs. It should be noted that presence of other substances newly included in the list of POPs (chlordecone, lindane, alpha hexachlorocyclohexane, beta hexachlorocyclohexane, hexabromodiphenyl, pentabromodiphenyl ether, octabromodiphenyl ether, perfluorooctanesulfonic acid and its salts and pentachlorobenzol) is confirmed in Ukraine			
3. HCB* generated from PVC production and rubber tyres production	HCB contaminated land in Kalush polygon, small quantity of illegally buried HCB in the surroundings		About 44 Ha	
D. Petroleum wastes Tarry and bituminous wastes, still bottom waste (from Distillation plants)	Used oils (same as under 3)	39,900		
E. Inorganic wastes Liquid and sludge inorganic waste Solid inorganic waste	<ul style="list-style-type: none"> Used Solvents Wastes of acids or salts In tailings: used sulphuric acid soda production sludge sludge generated from the treatment of wastewaters phosphogypsum waste containing iron sulphate and titanium dioxide waste production calcium sulphate, used in the production of phosphate fertilizers	1,100 1,023,500	1.9 Mln 37.4 Mln 16.2 Mln 18.4 Mln 2.9 Mln 24.0 Mln	
F. Health Care Risk Waste		3,000		
Summary volumes				
Estimate of total hazardous waste market (watch need tonnes/year)		450 Mln		
POPs waste volume	POPs pesticides waste excluding empty containers and fake pesticides PCB containing transformers PCB containing capacitors		Up to 18,500 5,000 pcs 200,000 pcs	
*HCB, a-HCH, b-HCH and pentachlorobenzene an occur as pesticide, by –product and industrial chemical Please note that nuclear/radioactive waste will not be considered for this overview!				

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, <u>permit for treatment of types hazardous waste, permit info, date permit</u>)	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			Do not exist	
2. Government owned			Do not exist	
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	Heidelberg Cement Kiln Krivoy Rog Podillya Cement	www.podcem.com.ua	Plant management was planning to develop POPs incinerating technology, however the project was banned by the City Council. The biggest Ukrainian cement plant "Podillya-cement" has already installed the dry kiln, special treatment equipment is passing tests now, so in principle this kiln is suitable for incineration of POPs. However, up to now, the management of the plant is not interested in incinerating POPs. According to the Cement Director Mr. John Madden, the Irish-owned kiln will probably be interested only in incinerating of municipal waste in case of application of local authorities. Incineration of empty plastic containers can also be an issue, in case the state can assure the relevant quantities and schedule of delivery of waste. It is important to say that "Podillya-cement" has not yet applied to the Ministry of Ecology and Natural Resources for obtaining licenses for incineration of any sort of wastes.	
2. Government owned				
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	Ivankiv district, Kiev oblast	Mr. Alexandr Bucher (00112@ukr.net) Web address www.si-group.co.il	Israeli company S.I.Group Consort Ltd is planning to construct a modern waste management centre with an incinerating facility. The selected technology is High temperature	

			incineration based on the incinerators manufactured by the Turkish factory "Santes"	
2. Government owned				
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				
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	Ivankiv district, Kiev oblast	Mr. Alexandr Bucher (00112@ukr.net) Web address www.si-group.co.il	Israeli company S.I.Group Consort Ltd is planning to construct a modern waste management centre with the incinerating facility. It is planned to install also the extruders, shredders and cleaning equipment for plastic containers	
2. Government owned				
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>				
1. Some local companies developed their own technologies. The E.O. Paton Electric Welding Institute and the Gas Institute (both of the National Academy of Sciences of Ukraine) have developed a technological process for treatment of organic wastes, based on pyrolysis (high-temperature gasification) with application of so-called "steam plasma" (that is plasma with water steam of high thermodynamic parameters used as plasma forming gas). However the project has been suspended in the R&D stage due to the lack of funds and estimated high energy costs				
2. MENR is discussing the possibility of development PPP project with some local companies				

Section IV: Transportation logistics

1. Assessment of various transport alternatives from main stockpile locations

(indicate large locations/or regions with more than 500 tonnes separately to the existing/planned treatment facilities including 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 <i>Indicate main ports/railway stations etc. and supply maps where possible</i>	Cost indications Problems to be expected	Reference /Annex if needed
1. In country 2. In foreign country	Country-wide	Traditionally waste is used to be shipped to Poland by trucks and to France – trucks or by ship (in case of big simultaneous delivery)	End of 2014	
1. In country 2. In foreign country				
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

List and describe existing stations with required details

As noted above, traditionally packed material is used to be collected directly from sites by the truck, going to the facility or port. Railway transportation is considered to be not feasible (exception – export of HCB from Kalush, where local industrial station has been used for loading of UN-certified big bags)

3. Assessment of transport capacity

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

The biggest private-owned transport company, ADR compliant and fully licensed in Ukraine, is AVS-trans (<http://www.avs-trans.com.ua/>), (info@avs-trans.com.ua). All smaller companies can be contacted via Association of International Auto transport companies (www.asmap.org.ua)

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

Describe Cases/ experiences that country have been made with international exports, not already covered under I.

Benchmarking under 7.2 International experience. Indicate year and location (country) where transported from and where to and authorities involved and kind of waste. Briefly describe cases

Case 1:

During the last 4 years Ukraine has exported more than 52,000 MT of POPs for incineration in different EU facilities. All export operations were completed strictly in accordance with Basel Convention regulations

Summary sheets on findings

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

The main problem is the big shortage of official information on new POPs and contaminated sites. Finally, the last political changes in the country were followed by changes of the personnel on the different levels. Quite often the newly appointed specialists and managers have no access to the old databases and do not know the subject of their responsibility

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

As mentioned above, the last political changes and unrest in the Eastern side of the country have been followed by systematic changes of the personnel on all levels. The newly appointed staff does not have any experience and quite often does not make feasible decisions. Political situation is also the subject of high level reduction of foreign economic activities in Ukraine. In the same time, the deep economic crisis suspended the local investment activity. However according to the latest information EU and major IFIs are keen to develop the system financial support to Ukrainian economy right now. Such positive signal can move out the economic barriers for construction of regional waste management facility in this country

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

There is a market demand on construction of multimodal WM centre(s). Existing developing projects of construction of multimodal WM facility with the technical support of top global players and financial support from IFIs will be positively accepted by the Government and civil society

- Other findings that need to be addressed

Ukraine is importing about 100K MT of pesticides per annum. About 20% of this import is counterfeit. Country needs legal and financial instruments to ship the illegal products back to the country of origin or to incinerate it inside Ukraine. In any case Ukraine is generating significant quantities of waste due to counterfeit products and empty containers

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: Details on Obsolete Pesticides and hazardous waste

Annex 3: Hazardous waste classification and quantity.

Annex 4: Old International Projects, devoted to evaluation of OPs problem in Ukraine

Annex 5: History of POPs management in Ukraine



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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



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 tonnes of pesticide stockpiles to high temperature incinerators operated commercially in EC member states. Whilst this strategy meets all international environmental compliance requirements it is prohibitively expensive. The vast distances involved for transport of waste from 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,



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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 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: Details on history of obsolete pesticides and quantities of hazardous waste (only in English)

Name of Country:	Prepared by: Mikhail Malkov
Ukraine	Finalized date:

Short summary of the history of obsolete pesticides in Ukraine

Ukraine is the second largest country (total area 603,548 km²) in Europe, with seven neighbouring countries. It is bordered in the north by Belarus (border length 891 km), in the northeast and east by Russia (border length 1,576 km), in the south by the Black Sea and the Sea of Azov, in the southwest by the Republic of Moldova (border 939 km) and Romania (south 169 km and west 362 km); and in the west by Poland (border 428 km), Slovakia (border 90 km) and Hungary (border 103 km). (See Picture 1)



Picture 1. Map of Ukraine

Ukraine was one of the most industrialized republics with a highly developed agrarian sector within the former Soviet Union. It became a new independent state in 1991 and now is considered as a country with an economy in transition. In the former USSR, annual production of pesticides reached from 150 to 200 thousand MT. A significant part of them was supplied to Ukraine and used here in different sectors of economy, mainly in agriculture, forestry, military medicine and industry.

The main factors that led to the accumulation of obsolete pesticide stocks in Ukraine are as follows:

- Drop in agricultural production in late 80th and 90th;
- Fundamental changes of the organization of agricultural production caused by privatization of land and collapse of collective farms (kolkhozes);
- Improper storage and inventory management;
- Improper handling during transport;

- The creation of overstock pesticides;
- Reservation of stocks in the event of the need to destroy large quantities of insects;
- The prohibition of the use of certain pesticides;
- The purchase of inappropriate pesticide formulations;
- Poor quality of purchased pesticides and lack of quality control;
- Change in national policy.

National environmental policy on obsolete pesticides management is being implemented both on national and regional (oblast) levels and is regulated mainly by the Law № 86/95-VR “On pesticides and agrochemicals” from 02.03.1995 and Law № 187/98-VR “On Waste” from 05.03.1998. Enactment of both laws resulted in the adoption of a number of government regulations and became the basis of signing the Stockholm Convention on POP. Ukraine had signed the Stockholm Convention on POPs in 2001 and became the Party of this global treaty in December 2007.

Besides, certain international activities, which allowed making the basis for an overall evaluation of the OPs problem in Ukraine, were undertaken during several recent years, it is worth being mentioned the following projects:

- «Elimination of Risks Related to Stockpiled Obsolete Pesticides in Ukraine» (1997-2004) – the Ministry of Environmental Protection of Ukraine, DEPA-DANCEE and COWI consulting group, Denmark;
- «Assistance to the Ukrainian Environmental Authorities Management of Contaminated Sites» (2003-2005) – the Ministry of Environmental Protection of Ukraine, DEPA-DANCEE and COWI consulting group, Denmark;
- «Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs) – National Implementation Plan for Ukraine» (2003-2007) – the Ministry of Environmental Protection of Ukraine, GEF and UNEP;
- «Management and Destruction of Obsolete Pesticides in Pilot Oblasts in Ukraine (Cherkasy and L’viv Oblasts)» (2004-2007) – National Agricultural University, National Academy of Sciences and US Environmental Protection Agency;
- «Elimination of Acute Risks of Obsolete Pesticides in Ukraine» (since 2008) – NGO “MAMA-86”, Milieukontakt International and the Ministry of Foreign Affairs of the Netherlands (Matra Program).

In the same time there were few attempts to organize toxic waste destruction in Ukraine.

In 2003 private enterprise “Elga Co” started industrial destruction of obsolete pesticides on the low-temperature industrial pyrolysis technology equipment with annual capacity up to 800 MT. This project was financed from the budget of Sumy Oblast Administration. However, further examination confirmed the technical impossibility of elimination of pesticides on such technology and the company was closed.

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In 2009 Krivoy Rog cement kiln, owned by “Heidelberg cement” also tried to organize industrial destruction of obsolete pesticides. These attempts were banned by the city Parliament due to its possible negative environmental impact.

Since 2007 Ukraine has started the program on exporting obsolete pesticides to EU for incineration. It was developed based on National Implementation Plan for Ukraine for Stockholm Convention on POPs, which final version was submitted to the Government on the 18th of September 2011, and strictly in accordance with the regulations of Basel Convention on Transboundary Movement of Hazardous Waste. It began by the first exports of the private Zaporozhye-located company “Dynamyka”, followed by state-owned “National Center for Hazardous Waste Management” (NCHWM), and then, after its liquidation – by the subsidiaries of Israeli company “S.I. Group (Consort)” Ltd.



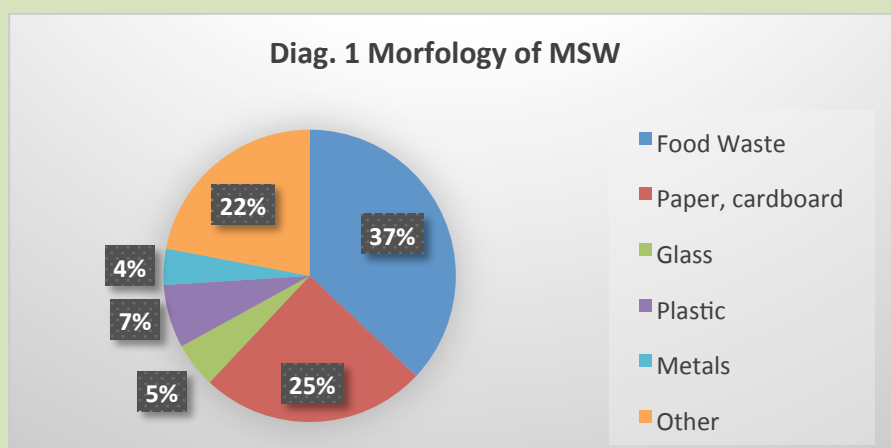
In 2007-2010 export operations were funded from the State budget, in 2011-2012 – both from the State and oblasts budgets. The Program is ongoing and should be completed by the end of 2013. Relevant funds are allocated both in the State and Oblasts budgets

Major Waste Streams

For Ukraine, as well as for many other countries, the issue of waste management is very urgent, considering that accumulated and generated wastes are the main cause of soil and groundwater pollution. National waste management strategy was developed in the 2010 by the Ministry of Ecology and Natural Resources. The major idea of the strategy was to determine the significant waste streams and to set up relevant businesses by each stream.

Municipal waste streams

According to Ministry of Regional Development and Construction, 50Mln cubic meters of waste are produced annually in Ukraine, or about 11-12MT of waste, an average of 240 kg per capita (in large cities this figure may be as high as 400-450 kg/person). The forecasted growth of Municipal Solid Waste (MSW) production is 3-5% per annum. The Ministry estimates that currently there have been accumulated approximately 2,5Mln MT of paper and cardboard, 350K MT of ferrous and 25K MT of non-ferrous metals, as well as 400K MT of plastic in the form of waste. Diag. 1 shows the morphology of MCW:



Hazardous waste streams

Like in the other former USSR countries, hazards in Ukraine have its toxicological classifier:

- Hazard Class I – extra-hazardous
- Hazard Class II – highly hazardous
- Hazard Class III – moderately hazardous
- Hazard Class IV – marginally hazardous

Hazard class is determined as per DSanPIN 2.2.7.029-99 “Hygienic Requirements of Industrial Waste Management and Definition of their Class of Hazard to Health of Population” (Chapter 5) approved by the authorities of the Ministry of Health as agreed with territorial authorities of the Ministry of Ecology and Natural Resources. Wastes of Hazard Class IV are identified as “non-hazardous temporary” for international statistical comparison. Table 1 shows waste generation in Ukraine in 2010 by Sources in thousands MT:

Table 1. Hazardous waste generation in Ukraine in 2010 by Sources, Thousands MT

No	Description and code NACE	Hazard classes I-III	Hazard class IV	Total, hazard classes I-IV
1.	Agriculture, hunt and forestry (A, fishery B)	164.9	8,410.1	8,575.0
2.	Extractive industry (C)	114.6	322,391.7	322,506.3
3.	Processing industry (D except for 37)	1,235.7	74,121.4	75,357.1
4.	Production and distribution of electric power, gas and water (E)	11.9	9,041.1	9,053.0
5.	Construction (F)	8.8	116.6	125.4
6.	Services (G – Q except for 90 and 51.57)	101.6	1,818.4	1,920.0
7.	Wholesale trade and scrap (51.57)	7.5	65.1	72.6
8.	Sanitary services, waste removal and disposal (90)	7.7	1,544.4	1,552.1
9.	Waste treatment (37)	7.1	23.2	30.3
	Total:	1,659.8	417,532.0	419,191.8

Table 2. Inventory of POPs pesticides, obsolete pesticides in Ukraine (per 10.07.2013)

Id	Category	Legacies/stockpiles (tons or m ³)	Production (t/year, m ³ /year)
2.1	Obsolete and POPs Pesticides	11.000 MT	
2.2	PCBs	4.994 MT	
2.3	Dioxins	1.451, g TEQ	
2.4	New POPs		
2.5	Empty containers		6.000 MT – 7.000 MT
2.6	Fake pesticides		12.000 MT
2.7	Soil contaminated with any of the above	More than 4000 contaminated sites nation-wide.	
2.8	HCB (Residue in Kalush)	12.500 MT	
2.9	MNCB (Residue in Gorlovka)	440 MT	
2.10	<p>Assessment of data quality and identification of significant waste streams:</p> <p>The Obsolete and POPs Pesticide figure is the approximate residue as per 10.07.2013 according to the inventories done by the Departments of Ecology of Oblast Administrations. Data quality can be considered as “good”.</p> <p>Latest PCB inventory was completed in 2009 and included into the latest version of NIP (18.09.2011). There is no other data available, as well as ongoing PCB inventories. Data quality can be considered as “moderate”.</p> <ul style="list-style-type: none"> The dioxins quantity is indicated as per NIP and based on the data collected in 2002. Data quality can be considered as “poor”. There is no statistics on new POPs available, but the Ministry of Ecology and Natural Resources is planning to start the accounting of new POPs. The quantity of empty containers is calculated as 7% of the total quantity of used pesticides in the country (in 2012 83,000 MT was imported and about 8,000 MT) was produced locally with the tendency of annual growth up to 5%. Data quality can be considered as “moderate”. The quantity of illegally imported and counterfeit pesticides is calculated on the basis of 15% of the total import. However, according to local experts the total volume can reach 30%. It is pretty difficult to determine the real quantity, so the data quality can be considered as “poor”. 		

- During the recent three years Ukraine has exported different POPs from more than 3500 locations. The residues are located in about 500 other sites. All sites have been identified, however it is impossible to say the quantity of square or cubic meters of contaminated soil. However, the state is planning to complete the priority list for land remediation in the contaminated sites. The study will include the inventory of the sites. Right now, the data quality can be considered as “poor”.
- According to the NIP the quantity of the buried HCB in Kalush polygon was 11.500 MT. The inventory completed in 2011 increased the quantity up to 22.000MT, exported to EU for destruction in 2010-2012. During completion of the study in the end of 2012, the Institute of Geochemistry of Environment of National Academy of Science of Ukraine found the illegal landfill located nearby the existing polygon with estimated quantity of HCB 8.500 MT. During the latest research works related with Dombrovskiy open-cast mine (July 2013) new illegal storage of HCB was found with the estimated quantity of 4.000 MT. Total residue of HCB in Kalush area as per 31.07.2013 is 12.500 MT. Data quality can be considered as “good”.
- From 2.440 MT of MNCB stored in Gorlovka Chemical Plant, about 2.000 MT were exported to EU for destruction. 440 MT are still remaining in the site. Data quality can be considered as “good”.



Picture 2. Steel Drums with HCB
found on the board of Dombrovskiy open-cast mine. July 2013

Annex 3. Hazardous waste classification and quantities

Like in the other former USSR countries, hazards in Ukraine have its toxicological classifier:

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As of January 1, 2012 in designated areas and in domestic enterprises there were accumulated 14.4 billion tons of waste, of which I hazard class are 35.1K MT, II -2,258.6K MT, III – 17.2Mln MT, IV – 14,402.9Mln MT.



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Annex 4: Old international projects, devoted to evaluation of OPs problem in Ukraine

- «Elimination of Risks Related to Stockpiled Obsolete Pesticides in Ukraine» (1997-2004) – the Ministry of Environmental Protection of Ukraine, DEPA-DANCEE and COWI consulting group, Denmark;
- «Assistance to the Ukrainian Environmental Authorities Management of Contaminated Sites» (2003-2005) – the Ministry of Environmental Protection of Ukraine, DEPA-DANCEE and COWI consulting group, Denmark;
- «Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs) - National Implementation Plan for Ukraine» (2003-2007) – the Ministry of Environmental Protection of Ukraine, GEF and UNEP;
- «Management and Destruction of Obsolete Pesticides in Pilot Oblasts in Ukraine (Cherkasy and L'viv Oblasts)» (2004-2007) – National Agricultural University, National Academy of Sciences and US Environmental Protection Agency;
- «Elimination of Acute Risks of Obsolete Pesticides in Ukraine» (since 2008) – NGO “MAMA-86”, Milieukontakt International and the Ministry of Foreign Affairs of the Netherlands (Matra Program).



Annex 5: History of POPs management in Ukraine

In 2003 private enterprise “Elga Co” started industrial destruction of obsolete pesticides on the low-temperature industrial pyrolysis technology equipment with annual capacity up to 800 MT. This project was financed from the budget of Sumy Oblast Administration. However, further examination confirmed the technical impossibility of elimination of pesticides on such technology and the company was closed.

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