

**Working Document**  
Management of Obsolete  
Pesticides

**Republic of Armenia**



Food and Agriculture  
Organization of the  
United Nations



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

### 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.

#### **The Republic of Armenia ratified Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade on 26 November 2003. It is a part of the RA Legislation.**

Based on relevant provisions of the Convention, the RA Government adopted the Decree No.293-N “on Defining the List of Chemicals and Pesticides Prohibited in the Republic of Armenia”. On 29 October 2004, the RA Government adopted Decree No.1508-N “On Fulfilment of the obligations of the Republic of Armenia proceeding from UN Rotterdam Convention Signed on 10 September 1998”.

Meantime, for implementation of the Rotterdam Convention, the following sub-normative legal acts should be adopted:

- On legal administrative measures to ensure timely decisions with respect to the import of chemicals listed in Annex III of Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
- On implementation of Paragraph b) of Article 11 of Rotterdam Convention on the Prior Informed Consent Procedure Hazardous Chemicals and Pesticides in International Trade.

On provision of Multilanguage label and safety data sheet within export of chemical.

#### **The Republic of Armenia has been a member of WTO since 5 February 2003**

#### **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.

#### **Armenia ratified the Stockholm Convention on Persistent Organic Pollutants on 26 November 2003. It is a part of the RA Legislation.**

After the ratification on 29 October 2004, the RA Government adopted the Decree No.1483-N “on Fulfilment of the obligations of the Republic of Armenia proceeding from UN Stockholm Convention Signed on 23 May 2001”. The Decree assigned the Ministry of Nature Protection to develop measures for the fulfilment of Armenia’s obligations under the Stockholm Convention and submit them to the Government. On January 13, 2005 the Government of the Republic of Armenia approved the National Implementation Plan that involved the Action Plan for implementation of the Convention.

RA Government Decree No.195-N, dated 17th February 2011, was issued and Regulation on utilization of useless pesticides was adopted.

Meantime, for implementation of the Stockholm Convention, the following sub-normative legal acts should be adopted:

- On implementation of Article 3 of Stockholm Convention on Persistent Organic Pollutants.
- On implementation of Article 5 of Stockholm Convention on Persistent Organic Pollutants.
- On implementation of Article 6 of Stockholm Convention on Persistent Organic Pollutants.
- On envisaging plane, norms and procedures dedicated to implement Article 10 of Stockholm Convention on Persistent Organic Pollutants.
- On implementation of Article 11 of Stockholm Convention on Persistent Organic Pollutants.
- On establishment of regional and sub-regional centers for capacity building and transfer of technology

**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.

**Armenia acceded to the Basel Convention on 01/10/1999**

Before accession, however, on 08 December 1995, the RA Government adopted Decree N 97-N “on the Regulation of Import, Export and Transit of Hazardous and Other Waste in the Territory of the Republic of Armenia” in accordance with the main provisions of Basle Convention.

Under the Heading “Import, Export and Transit of Hazardous and Other Waste in the Territory of the Republic” the Decree provides:

- In crossing the state border of the Republic of Armenia, the carriers of hazardous and other waste are obliged to submit transport permission issued by the authorized bodies of the Republic of Armenia to the border and custom services.
- The transported waste must be packed, labelled and carried according to the international customs and usages. They must be accompanied by corresponding documentation on transportation containing the complete traffic rout including the departure and destination points.

Any person responsible for the transportation of hazardous and other waste must sign a document on waste transportation, receipt or delivery. In case of transit across the territory of the republic of Armenia, he/she must 15 days before and 10 days after transportation notify the RA authorized body in writing. (Art.6, point 9 of Convention)

The person responsible for waste removal must in 7 days from the day of receipt and 10 days after the end of removal activities notify the exporter and the authorized bodies of exporter and importer countries.

The custom bodies of the Republic of Armenia keep record of each case of import, export and transit of hazardous and other waste in the territory of the Republic, the type, quantity and traffic of transported waste and submit corresponding statements to the authorized body of the RA in each semester. (Art. 6, pt. 7 of the Convention).

Also, for implementation of the RA Government Decree No.97-N “on the Regulation of Import, Export and Transit of Hazardous and Other Waste in the Territory of the Republic of Armenia”, the RA Ministry of Nature Protection issued Order No.96, dated 10 August 1999, That Order was coordinated and agreed with the RA Ministry of Finances and Economy and the RA Custom Department. By that Order, Armenia adopted list of wastes by taking into consideration characteristics of the wastes that are issue for regulation under RA Government Decree No.97-N, dated 01 October 1999. Also, forms of required documents, which are necessary for importing, exporting and transiting of hazardous and other waste in the territory of the Republic of Armenia, were adopted by the mentioned Order No.96 of the RA Ministry of Nature Protection

Meantime, for the implementation of the Basel Convention, the following sub-normative legal acts should be adopted:

- On Transboundary Movements of Hazardous Wastes. That legal act should regulate all features and steps on permission issuing for or rejection of import/export of hazardous wastes.
- On promulgation by the RA Ministry of Nature Protection of the annual statistic reports regarding hazardous wastes generation.
- On adoption of criteria dedicated to ensure reduction of generation of hazardous wastes and other wastes, taking into account social, technological and economic aspects.
- On criteria and norms for establishment of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes.
- On necessary measures and steps to prevent pollution due to hazardous wastes and other wastes arising from management of hazardous wastes or other wastes
- On criteria regarding activities to reduce hazardous wastes and other wastes regarding environmentally sound and efficient management.
- On necessary criteria and norms to reduce transboundary movement of hazardous wastes and other wastes.
- On prohibition of export of the hazardous wastes if importing state prohibited by its legislation all imports of hazardous wastes.
- On scope of exchange information regarding waste management with international organizations and foreign countries.
- On liability of RA to prohibit hazardous wastes or other wastes to be exported to a non-Party or to be imported from a non-Party.
- On periodical review of possibilities to reduce amount and/or the pollution potential of hazardous wastes and other wastes,

which are exported to other States, in particular to developing countries.

- On timely provision of information regarding risks to other states, within transboundary movement of hazardous wastes.
- On implementation of Paragraph 3 of Article 13 of Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

### International Agreements

There are no International Agreement in Armenia

## Section II: Regulatory framework on waste management

### Chapter I Political and Legal Framework

#### General overview

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

In Armenia, the relationships regarding waste management are regulated by the Constitution, international agreements, the RA Law on Wastes and other legal acts. There are legal acts that identify the terms “waste” or “refuse” and reflect the scope envisaged by the international agreements or the RA Law on Wastes. Meantime, there are legal acts that regulate waste management relations without making any reference to the terms “waste” or “refuse”.

International treaties directly related to the waste management in Armenia are: the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants. However, the implementation of the international treaties governing the waste management requires the adoption of appropriate legal acts and mechanisms within the RA legislation framework.

In Armenia, there is no specific law on hazardous waste management. General provisions on waste management, including hazardous waste management are provided by the RA Law on Wastes. Also, there is the RA Law on Refuse Collection and Sanitary Cleaning which regulates the management of household refuse collection and sanitary cleaning. However, this particular law is applicable for relationships regarding hazardous waste management only if it is directly specified.

In addition, pesticides are included in the list of hazardous waste in Armenia. Hence, it is considered that the general provisions on hazardous waste management and pesticides are provided by the RA Constitution and international treaties, the RA Law on Wastes and sub-normative legal acts

### Situation with stocks of obsolete pesticides

#### The RA national Laws and regulations that govern hazardous waste (especially OP) management are:

1. The Constitution
  - Article 10 ensures the protection and reproduction of the environment and the reasonable utilization of natural resources.
  - Article 33.2 ensures the protection of the right to live in an environment favorable to his/her health and well-being.
  - Article 33.2 further ensures that everyone (personally or jointly with others) shall be obliged to protect and improve the environment.
  - Article 48 ensures that an environmental security (meant is safety) policy for present and future generations will be implemented as one of the basic tasks of the state in all spheres of life (economic, social, cultural etc.).
  - Article 48 further stipulates that the state shall, within the scope of its powers (and abilities), be obliged to undertake necessary measures for the fulfillment of the environmental security (safety) policy for present and future generations.
  - Article 89 ensures that the Government implement state policies in the areas of science, education, [...] health, [...] and environmental protection.
2. The Civil Code
3. The Water Code

4. The Land Code
5. The Code on Underground Resources
6. The Law on Waste
7. The Law on Refuse Collection and Sanitary Cleaning
8. The Law on Environmental Impact Assessment
9. The Law on Atmospheric Air Protection
10. The Law on Nature Protection and Nature Utilization Payments
11. The Law on Environmental Fees
12. The Law on Environmental and Nature Utilizations Fees
13. The Law on Target Use of Environmental Fees Paid by Company
14. The Law on Flora and Law on Fauna
15. The Law on Environmental Oversight
16. The Law on Inspection of Use and Protection of Land
17. The Law on the Protection and Use of Fixed Cultural and Historic Monuments and Historic Environment
18. The Law on Sanitary and Epidemiologic Security of Population
19. The Law on State Regulation of Technical Safety
20. The Law on Local Self-Governing
21. The RA Law on Licensing
22. The RA Government Decrees No.97 (dated 8 December 1995) on regulation of import, export and transit of hazardous and other waste on the territory of the Republic of Armenia
23. The RA Government Decree No.121-N (dated 30 January 2003) on adoption of rule regarding licensing of the activity with hazardous waste processing or disinfection, or protection, or transportation and disposal
24. The RA Government Decrees No.874-N (dated 20 May 2004) on adoption of the list of hazardous waste
25. The RA Government Decree No.1093-N (dated 08 July 2004) on adoption of the list of forbidden hazardous waste
26. The RA Governmental Decree No.1508-N (dated 29 October 2004) on assigning the RA Ministry of Nature Protection as the authorize body within Article 4 of Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
27. The RA Government Decree No.1483-N (dated 29 October 2004) on assigning the RA Ministry of Nature Protection as the authorize body (national coordinator) within Article 9 of the Convention.
28. The RA Government Decree No.46-N (dated 05 February 2004) on adoption of rule and establishment of intergovernmental commission regarding licensing of the activity with hazardous waste processing or disinfection, or protection, or transportation and disposal
29. The RA Governmental Decree No.599-N (dated 19 May 2005) on assigning the RA Ministry of Nature Protection as the authorize body in waste management domain
30. The RA Governmental Decree No.670-N (dated 19 May 2005) on establishment of "Waste Study Center" State Non-commercial Organization
31. The RA Governmental Decree No.703-N (dated 19 May 2005) on adoption of the rule regarding licensing of works with radioactive waste, reprocessing of radioactive waste and adoption of form of license
32. The RA Government Decree No.2291-N (dated 09 December 2005) on adoption of normative of waste origination and forms of calculation models of the projects regarding waste disposal limits
33. The RA Government Decree No.500-N (dated 20 April 2006) on adoption of the rule on waste production, reprocessing and recycling register record keeping
34. The RA Government Decree No.1180-N (dated 13 July 2006) on adoption of the rule on recording of waste removal sites
35. The RA Government Decree No.1343-N (dated 14 September 2006) on adoption of the rule on recording of waste origination, removal (elimination, disinfection, disposal) and recycling
36. The RA Government Decree No.1544-N (dated 28 September 2006) on defining technical regulation regarding to the waste generated from packaging and packing
37. The RA Government Decree No.1739-N (dated 13 December 2006) on adoption of rule of the waste state inventory
38. The RA Government Decree No.144-N (dated 18 January 2007) on adoption of the rule on provision of waste state cadaster
39. The RA Government Decree No.293-N (dated 17 March 2007) on adoption of the list of chemicals and



- pesticides prohibited in RA
40. The RA Governmental Decree 1189-N (dated 03 September 2010) on establishment of the agency of waste management and atmosphere emission at the administration of the RA Ministry of Nature Protection
  41. The RA Government Decree No.195-N (dated 17 February 2011) on adoption of regulation on utilization of useless pesticides
  42. The RA Ministry of Nature Protection Order No.96 (dated 10 August 1999) on adoption of list of regulated and unregulated waste, hazardous features, statement submission, notification and removal action documents
  43. The RA Ministry of Nature Protection Order No112-N (dated 22 August 2002) on adoption of the form and instruction for annual statistic reporting of waste origination, use and removal
  44. The RA Ministry of Nature Protection Order No.359-N (dated 07 November 2006) on adoption of forms of registration reports list of the objects on producing, reproducing and using waste and recordkeeping book
  45. The RA Ministry of Nature Protection Order No.430-N (dated 25 December 2006) on adoption of the list of waste classified by hazardousness
  46. The RA Ministry of Nature Protection Order No.19-N (dated 02 February 2007) on adoption of the model form of the waste passport
  47. The RA Ministry of Nature Protection Order No.97-N (dated 27 April 2007) on adoption of normative of waste origination and forms of calculation models of the projects regarding waste disposal limits
  48. The RA Ministry of Nature Protection Order No.47-N (dated 19 January 2006) on adoption of the rule on passportization of the waste
  49. The RA Ministry of Nature Protection Order No.387-N (dated 24 November 2006) on adoption of the forms of registry sheet on waste removal sites and recordkeeping book
  50. The RA Ministry of Health Order No.256-N (dated 24 March 2005) on defining sanitary rules and norms "on Rules of Mineral Fertilizer Production, Storage, Transportation and Distribution"
  51. The RA Ministry of Health Order No.790-N (dated 30 August 2005) on defining sanitary rules and norms "on Storage, Transportation, Using and Selling of Poison-chemicals (Pesticides)"
  52. The RA Ministry of Health Order No.03-N (dated on 4 May 2008) on defining sanitary rules and norms N 2.1.3-3 "Hygienic and Epidemiological Requirements to Medical Waste Management"
  53. The RA Ministry of Health Order No.20-N (dated 29 October 2009) on defining sanitary rules and norms N 2.1.7.001-09 "Hygienic Requirements to the Management of Hazardous Waste and Storage and Transportation of Hazardous Chemical Substances"
  54. The RA Ministry of Health Order No.25-N (dated on 22 December 2009) on defining sanitary rules and norms No.2.1.7.002-09 "Hygienic Requirements to the Sanitary Maintenance of Settlement Territories, Collection, Storage, Transportation, Processing, Reprocessing, Recycling, Disinfection and Landfilling of Municipal Waste, Labor Safety of the Staff engaged in activities in the sphere of Sanitary Maintenance of Settlement Territories, Municipal Waste Management"
  55. The RA State Statistic Union Decision No.208-N (dated 10 September 2002) on adoption of the form and instruction for summary statistic reporting of waste origination, use and removal
  56. The RA State Statistic Union Decision No.213-N (dated 10 September 2002) on adoption of the form and instruction for state statistic reporting of complex use of minerals generated within enrichment and metallurgical transformation of waste in mining and industrial process

Hazardous waste classification system is provided by:

1. RA Government Decree No.1093-N (dated 08 July 2004) on adoption of the list of forbidden hazardous waste,
2. RA Government Decrees No.874-N (dated 20 May 2004) on adoption of the list of hazardous waste;
3. RA Government Decree No.293-N (dated 17 March 2007) on adoption of the list of chemicals and pesticides prohibited in RA and
4. RA Ministry of Nature Protection Order No.430-N (dated 25 December 2006) on adoption of the list of waste classified by hazardousness

Pesticides are included in hazardous waste classification.

RA Government Decree No.1508-N, of 29 October 2004.

Articles 14, 15 and 16 regulate relationships regarding the provision of the State waste cadaster, registration of the waste production, reprocessing and recycling objects, and registration of waste removal sites. The waste



	<p>cadaster comprises waste classification system, lists of waste production, reprocessing and recycling structures, as well as a database on waste utilization and disinfection technologies. Registration of the waste production includes information on waste index names, production quantities, qualitative and quantitative characteristics, waste treatment, reduction of waste volumes and hazardous level. Registration of waste removal sites is provided based on waste passports and the waste producers' reports. Information of the waste removal sites' register shall be verified annually</p> <p><b>Policies or strategies at the national level</b></p> <p>Manual on the safe conditions for industrial and municipal waste disposal and disinfection was accepted by the RA Government within the meeting on 26 April 2006.</p> <p>According to the RA Government Decree No.1594-N, dated 10th November 2011, within 2012 – 2016 some measures should be provided and legal acts should be adopted for implementation of Articles 4.2 (a), 10 and 13.3 of the Basel Convention</p>		
<p><b>Chapter II</b>  <b>Specific Laws and Regulations that govern waste management</b></p>	<p><b>Sector</b></p>	<p><b>EU legislation</b></p>	<p><b>Armenian legislation</b></p>
	<p><i>General waste management</i></p>	<p>Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance), <i>OJ L 312, 22.11.2008, p. 3–30</i></p>	<p>It is not a part of the RA legislation. However, norms of the Directive 2008/98/EC may be provided and implemented by the RA national laws and sub-normative acts.</p> <p>Generally, waste management in Armenia is provided within the RA Constitution, the RA Law on Waste and other legal acts, which are referred in the previous section</p>
	<p><i>Import/Export</i></p>	<p>Regulation (EC) No.689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals, <i>OJ L 204, 31.7.2008, p. 1–35</i>.</p> <p>Regulation (EU) No.649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals Text with EEA relevance, <i>OJ L 201, 27.7.2012, p. 60–106</i></p>	<p>It is not a part of the RA legislation. However, norms of the Regulation (EC) No.689/2008 may be provided and implemented by the RA laws and sub-normative acts.</p> <p>Based on relevant provisions of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the RA Government adopted the Decree No.293-N “on Defining the List of Chemicals and Pesticides Prohibited in the Republic of Armenia”. On the 29th of October 2004, the Government of Armenia adopted the Decree No.1508-N “on Fulfilment of the obligations of the Republic of Armenia proceeding from UN Rotterdam Convention Signed on 10 September 1998”. The Decree assigned to the Ministry of Nature Protection, in cooperation with a number of other ministries, to submit a proposal on the prohibition, strict limitation or permission of chemicals and pesticides that are subject to regulation in accordance with the Rotterdam Convention and submit it to the Government</p>
<p><i>Landfill of waste</i></p>	<p>Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, <i>OJ L 182, 16.7.1999, p. 1–19</i></p>	<p>It is not a part of the RA legislation. However, norms of the Directive 2008/98/EC may be provided and implemented by RA laws and sub-</p>	

		normative acts. Generally, waste management in Armenia is provided within the RA Constitution, the RA Law on Waste and other legal acts, which are referred in the previous section
<i>Incineration</i>	Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste, <i>OJ L 332, 28.12.2000, p. 91–111.</i>	It is not a part of the RA legislation. However, norms of the Directive 2000/76/EC may be provided and implemented by RA laws and sub-normative acts. Meantime, only the RA Ministry of Health's Order No.03-N (dated 4 May 2008) on defining sanitary rules and norms "Hygienic and Epidemiological Requirements to Medical Waste Management" envisage provisions on requirements of incinerators of medical waste
<i>Shipment of waste</i>	Regulation (EC) No.1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, <i>OJ L 190, 12.7.2006, p. 1–98.</i>	It is not a part of the RA legislation. However, norms of the Regulation (EC) No.1013/2006 of the European Parliament and of the Council may be provided and implemented by RA laws and sub-normative acts. Also, before accession of the Basle Convention, on the 8th of December 1995, the RA Government adopted Decree No.97-N "On the Regulation of Import, Export and Transit of Hazardous and Other Waste in the Territory of the Republic of Armenia" in accordance with the main provisions of Basle Convention. Under the Heading "Import, Export and Transit of Hazardous and Other Waste on the Territory of the Republic" the Decree provides: <ul style="list-style-type: none"> <li>• In crossing the state border of the Republic of Armenia the carriers of hazardous and other types of waste are obliged to submit to the border and custom services a transport permission issued by the authorized bodies of the Republic of Armenia.</li> <li>• The transported waste must be packed, labelled and carried according to the international customs and usages. They must be accompanied by corresponding documentation on transportation containing the complete traffic rout including the departure and destination points.</li> </ul> <p>Also, for implementation of the RA Government Decree No.97-N "On the Regulation of Import, Export and Transit of Hazardous and Other Waste on the Territory of the Republic of Armenia", the RA Ministry of Nature Protection issued Order No.96, dated 10 August 1999. That Order was coordinated and agreed with the</p>

			<p>RA Ministry of Finances and Economy and the RA Custom Department. By that Order, the RA adopted the list of wastes by taking into consideration characteristics of the wastes that are issue for regulation under the RA Government Decree No.97-N, dated 1 October 1999. Also, the forms of required documents, which are necessary for importing, exporting and transiting of hazardous and other waste in the territory of the Republic of Armenia, were adopted by the mentioned Order No.96 of the RA Ministry of Nature Protection</p>
<p><b>Chapter III Institution(s) involved in waste management (focus on pesticides)</b></p>	<p>Institutions involved in waste management in the Republic of Armenia, are the following:</p> <ol style="list-style-type: none"> <li>1. The RA Ministry of Nature Protection, as the state authorized body within waste management domain. Meantime, according to the Chapter of the RA Ministry of Nature Protection (adopted by RA Government Decree 1237-N, of 08 June 2002) there is a division on Hazardous waste and substances policy as well as there is separate structural body that is called as “Agency on management of waste and atmospheric emissions.”</li> <li>2. The RA Ministry of Health</li> <li>3. The RA Sate Statistic Union</li> </ol> <p>At the local level regional offices are responsible for waste management:</p> <ol style="list-style-type: none"> <li>1. State Regional Governmental bodies</li> <li>2. Local self-governing bodies (municipalities)</li> </ol>		



### Section III: Analysis of existing national waste management legislation

#### Theme 1 Scope

**The Law on Waste (LOW) 2004**, has been enacted to regulate, amongst others, waste collection, transportation, storage, processing, recycling, removal and volume reduction, with the following main objectives and principles (Article 5):

- (a) to establish a unified state policy in the area of waste management;
- (b) to establish of conditions and requirements for an environmentally friendly waste management policy, providing economic incentives for resource-saving activities;
- (c) to avoid the generation of excessive waste, to promote waste utilization and to mitigate the adverse effects of waste on human health and the environment;
- d) to elaborate the legal basis for the regulation of waste management.

To realize these objectives and principles, LOW allows for the adoption of sub-normative legal acts. A number of those have been enacted.

A key part of LOW is Article 4. It defines “waste” as both “industrial” and “municipal” waste, which are the remains of materials, raw materials, output, other products or organic waste derived from industrial activities and municipal, as well as goods (products) that lost their original consumer attributes.

**Hazardous waste** is defined as waste having physical, chemical and biological characteristics that are or might be dangerous to human health and environment and require special treatment methods, modes and means.

“Waste management”, according to Article 4 means: prevention, collection, transportation, disposal, processing, reprocessing, recycling, removal, disinfection and landfilling (as a disposal option).

This means, that any reference to “waste management” in this or other legislation will include all the above mentioned activities, in other words, waste management for both, household and industrial / commercial waste.

“Waste collection” includes the removal, sorting and waste disposal. Transportation is defined as transportation as such and storage (on sorting, recycling and disposal sites).

According to LOW the waste disinfection is considered to be decrease or elimination of dangerous characteristics of waste through mechanical, physical- chemical, biological processing.

“Waste disposal” is defined as isolation of waste, which eliminates its further utilization and is aimed at its neutralization and prevention of dangerous substances' emissions into environment.

“Landfilling” is defined as final placement of waste in the specially provided areas and structures to eliminate its impact on human health and environment.

“Specially Provided Areas” are sites where waste can be placed and disposed (landfilled). For landfills a permit is required. Landfills are specifically mentioned as “licensed landfills”, which means a “permit” has been issued as established by law, but no license since licenses to be issued are enumerated in the Law on Licensing.

The law also provides definitions of the waste transportation and trans-boundary transportation of waste. Accordingly, waste transportation is transportation of waste from places of its production and its storage on sites or structures for processing, recycling or removal. Trans-boundary transportation of waste is transportation of waste from the territory of one state to another or through the territory that is not under the jurisdiction of a certain state conditioned upon the fact that such transportation is related to both states.

Wastes (again in the defined sense) are further defined by a “waste classification system” and can be tracked via a waste passport, which is a document verifying type and risk level of waste, which provides information about waste composition. Waste state classification system is a systematized list of codes and names of waste to be used in the state or administrative statistics for provision of comprehensive and valid data on waste production, collection, processing, reprocessing, disinfection and removal.

LOW also envisages provisions on quota of waste disposal, which is marginal allowable quantity of a particular type of waste, which depending on the environmental situation of the specific territory, can be placed in the waste disposal structures for a defined period of time in the procedure established by law.

Article 6 defines the “main approaches” of state regulation for waste management, being the protection of human health and the environment (see also constitutional obligations) and to balance environmental, economic and social interests in the area of waste management. The main approaches of the state policy in the

area of waste management are reduction of waste production and risk level through:

- use of modern scientific and technological achievements for implementation of non-waste or low-waste technologies;
- complex utilization of raw material resources for reduction of waste quantity (volumes);
- maximal consumption of waste which has a raw material value, through its direct, double and alternative utilization;
- assurance of safe removal of non-recyclable waste through development of waste disinfection and elimination technologies, environmentally safe methods and means;
- Assurance of information accessibility in the area of waste management; provision of economical incentives' system.

Article 7 sets out obligations for the Government of Armenia (GOA) within waste management that includes, but not limited to:

- a) Develop the state policy for the sector and ensure its implementation;
- b) Coordinate activities of the state authorized bodies in the area of waste management;
- c) Ensure system of economic incentives for implementation of less-wasteful technologies, waste collection and recycling;
- d) Provide a waste inventory, generation, removal (elimination, disinfection, disposal) and recycling procedure;
- e) Provide a procedure on licensing of activities in the area of dangerous waste reprocessing, disinfection, storage, transportation and disposal, as well as carry out licensing of those activities;
- f) Provide lists of hazardous and restricted waste;
- g) Provide a procedure on trans-boundary transportation and removal of waste;
- h) Ensure establishment of structures for placement of disinfected and non-recyclable waste;
- i) Carry out international cooperation in the area of waste management;
- j) Carry out other authorities provided by law.

Article 8 (addresses the Ministry of Nature Protection) obliges the authorities of the environmental state authorized body:

1. to participate in the policy development;
2. to approve sites and locations of waste management objects (that is any structure needed for waste management);
3. to carry out a waste inventory; to provide a list of hazardous wastes;
4. to submit proposals on issuance of permits for trans-boundary transportation of hazardous waste;
5. to establish a database on quantity of waste generation volumes; to carry out state environmental impact assessment for construction and remodelling of polygons, complexes, buildings and other specially provided areas and structures, as well as environmental impact assessment of operation's design documents and complex programs for waste production, processing, recycling, disposal and removal;
6. share information about non- or less-wasteful technologies with other governmental agencies; carry out international cooperation in the area of waste management and sign intergovernmental contracts on trans- boundary transportation of waste;
7. to exchange information on waste management with international organizations and foreign countries; to coordinate waste passports and to keep a registry and to draft legal acts for regulation of the waste management sector
8. to approve normative acts within its jurisdiction.

Article 24 establishes supervision over waste management by a state authorized body, which is the Ministry of Nature Protection (MinNP) clarified by the RA Government Decree No.599-N on Designating Authorized Body in the Area of Waste Management, dated 19th May 2005.

Meantime, according to the RA Government Decree No.1483-N, dated 29th October 2004, MinNP is the authorized body within Article 9 of the Stockholm Convention on Persistent Organic Pollutants.

Also, according to the RA Government Decree No.1508-N, dated 29th October 2004, MinNP is the authorized body within Article 4 of Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Article 9 (addresses the Ministry of Health) requires that state authorized body:

- to develop public health safety requirements to be incorporated into the normative- technical documents on waste management;
- to elaborate sanitary and epidemic rules, norms and hygienic standards aimed at prevention of hazardous and adverse effects of waste on human health in the process of waste production, collection, transportation, storage, processing, recycling, removal, disinfection and landfill;
- oversee implementation of these requirements;
- to develop main directions for measures aimed at protection of human health from adverse effects of waste and submit those to the RA Government;
- to give an assent on location sites for the waste management objects;
- provide sanitary-hygienic requirements of output produced from waste and issue hygienic expert opinion;
- to participate in development of classification list of waste taking into consideration the hazardous level of the waste.

Article 10 outlines the duties of the territorial administration bodies (i.e. Marzes), which are, inter alia, to participate in development of the state policy and programs in the area of waste management; to prepare, develop and “oversee” the implementation of programs in the waste management sector and to issue permits for the disposal of waste within their geographical area (Article 10.d). They also prepare sanitary cleaning schedules, “oversee” waste collection, maintain records on waste related activities they can liquidate (close) not licensed (certified) landfills and organize public participation in the collection of waste.

Article 11 describes the authorities of local self-government to “oversee” waste collection, prepare sanitary cleaning schemes (street cleaning, snow removal) and liquidate non-licensed (non-certified) landfills and organize public participation. RA Law on Self Government may establish additional duties.

For protection human health and environment and for reduction of the waste volumes, Articles 12 envisages that waste disposal quotas shall be set for legal entities and private entrepreneurs involved in the waste management. The mentioned quotas for disposal of waste shall be set by the state authorized body in the area of waste management in accordance with the approved norms of marginal allowable level of impact. Legal entities and private entrepreneurs involved in the waste management shall submit drafts of proposed norms of waste production and disposal to the state authorized body in the area of environmental protection for approval in the procedure provided by the RA Government.

Within Article 13, legal entities involved in the waste management (including foreign and private entrepreneurs) are obliged to carry out initial inventory of produced, utilized, disinfected, transferred to or received from other entities and disposed waste. Also, legal entities (including foreign and private entrepreneurs) producing and transporting hazardous waste are obliged to submit administrative statistical reports to the state authorize body of the sector in the procedure established by law and other legal acts.

Article 17 establishes a periodic monitoring obligation for “state authorized bodies” of waste removal sites. This term is not defined, but presumably refers to landfills. This means that the monitoring of landfills is with the state authorized body, MinNP. The purpose of monitoring is to evaluate and forecast impact of waste on the environment.

Article 18, by essence, articulates constitutional rights of a natural person:

- to have safe health and life conditions while implementing activities related to waste management;
- to receive information about safety of operating waste management structures, as well as those under construction or to be constructed;
- to receive compensation for injuries and damages to the property caused by violation of legislation on

waste.

Articles 19 and 20 state rights and obligations of the legal entities and private entrepreneurs in the waste management sector. They have rights:

- to receive information about waste recycling technologies, waste management objects construction and operation from the relevant state government bodies;
- to submit proposals on location, design, construction and operation of waste management objects to the state government bodies;
- to receive privileges, while establishing waste management facilities;
- To participate in development of the local, regional and state programs in the area of waste management.

They are obliged:

- to follow the requirements of legislation in the area of waste management;
- to place waste only in the areas specially provided for that;
- to notify about emergencies for human health and environment that occur during waste management and take measures to eliminate negative results of such situations.

Article 21 envisages organizational and economic measures aimed at waste recycling and reduction of production volumes. Such measures are:

- a) Provision of waste production and disposal quotas;
- b) Setting of environmental fees for allocation of waste based on payment rates, determined depending on the waste risk level and cadastral price of land given for the waste disposal structure;
- c) On cases and in the procedure established by law provision of privileges to the enterprises and organizations reducing waste generation volumes and introducing low- waste technologies in the production process, as well as to those involved in the collection, storage and delivery of the secondary resource waste;
- d) Preparation of a list of waste having value of a secondary resource for which a special regime shall be established to promote its collection, storing and utilization.
- e) Target financing of scientific research of waste recycling and reduction of waste production volumes in the procedure established by law;
- f) Target use of waste disposal fees set by law to finance activities aimed at utilization of waste and reduction of waste production;
- g) Establishment of funds for financing of waste recycling activities using financial sources of waste producers and waste owners as well as Armenian and foreign legal entities' voluntary contributions and other sources allowed by the RoA legislation.

Article 23 envisages possible measures for promotion of activities aimed at waste recycling and waste production volumes reduction. However, law does not identify such measures.

#### **Law on Refuse Collection and Sanitary Cleaning**

The law adopted in 2011 regulates waste collection and sanitary cleaning and establishes main principles of waste collection fees and tariffs, rights and obligations of service recipients as well as payment procedure. The law stipulates obligations of self-governing bodies and the procedures of realization those obligations regarding sanitary cleaning. By essence, relationships regarding hazardous waste are eliminated from this law. However, one of the main principles and targets of that law is reduction of the waste's hazardous effects on human health and environment.

#### **Environmental Legislation**

Amongst the principals embedded in Armenian environmental regulatory framework for waste management area are:

- a) Protection of human health and environment from adverse effects of waste and,
- b) Assurance of reasonable use of raw material and energy resources.

With this regard waste (including hazardous waste) classification and waste data management are effective tools of tracing the data on achieving this objective and taking improved measures based on the analysis of the



data received through reporting.

### **The Law on Environmental Impact Assessment**

The Law on Environmental Impact Assessment (LEIA) was enacted on the 20<sup>th</sup> of November 1995. It sets out the basic duty to conduct an environmental impact assessment (EIA) (article 2) if certain “activities” are planned. Unless the result of the EIA is positive, the “implementation of the intended activity” is prohibited. According to LEIA among the activities/objects requiring impact assessment conclusion are also "removal of hazardous and other type of waste or processing with that aim" and "facilities of waste removal" (article 4).

This means that any landfill related “activity” is subject to a mandatory EIA assessment, while municipally solid waste collection and transportation activities are not covered by the LEIA.

### **Water Code**

The main purpose of the Water Code is to provide the legal basis for the protection of the water resources, the satisfaction of water needs of citizens and economic sectors through effective management of water resources and ensuring the protection of water resources for future generations. The Water Code addresses the following key issues:

- responsibilities of state/local authorities and public
- development of the national water policy and national water program, water cadastre and monitoring system
- public access to the relevant information
- water use and water system use permitting systems
- trans-boundary water resources use
- water quality standards
- hydraulic facilities safe operation issues
- protection of water resources
- state supervision.

### **Code on Underground Resources**

This Code contains the main directives for use and protection of mineral resources and underground water, including the sanitary protection zones for the underground water resources.

### **Law on Atmospheric Air Protection**

The purpose of Law on Atmospheric Air Protection is to define main principles of the RoA, directed to provision of purity of atmospheric air and improvement of air quality, prevention and mitigation of the chemical, physical, biological and other impacts on air quality and regulation of public relation. This Law also regulates the emission licenses and provides maximum allowed loads/concentrations for atmospheric air pollution, etc.

### **Law on Nature Protection and Nature Utilization Payments**

The law defines the concept of nature protection and utilization payments, identifies the potential taxpayers and types of payments, determines the methodology for calculation and payment, as well as assigns responsibilities for the violation of this law.

### **Law on Flora and Law on Fauna**

The Laws on Flora and Fauna outline the State's policies for the conservation, protection, use, regeneration, and management of natural populations of plants and animals, and for regulating the impact of human activities on biodiversity. These laws aim to the sustainable protection and use of flora/fauna and the conservation of biodiversity. There are provisions for assessing and monitoring species, especially rare and threatened species.

### **Law on Environmental Oversight**

The Law regulates the issues of organization and enforcement of oversight over the implementation of environmental legislation of the Republic of Armenia and defines the legal and economic bases underlying the specific characters of oversight over the implementation of environmental legislation, the relevant procedures, conditions and relations as well as environmental oversight in the Republic of Armenia. The existing legal framework governing the use of natural resources and environmental protection includes a large variety of legal documents. Government resolutions are the main legal implementing instruments for environmental laws. The environmental field is also regulated by presidential orders, Prime Minister’s resolutions and ministerial decrees.

### **Law on Inspection of Use and Protection of Land**



This law provides objectives and types of effective use and protection of lands of the Republic of Armenia, inspection related to enforcement of land legislation and institutions, procedures of control, rights and responsibilities of entities controlling land use and protection. The law applies to all lands of the Republic of Armenia Land Fund, irrespective of purpose, ownership and/or right to use.

#### **Law on the Protection and Use of Fixed Cultural and Historic Monuments and Historic Environment**

The Law provides the legal and policy basis for the protection and use of such monuments in Armenia and regulates the relations among protection and use activities. Article 15 of the Law among others describes procedures for the discovery and state registration of monuments, the assessment of protection zones around them and the creation of historic-cultural reserves. Article 22 requires the approval of the authorized body (Department of Historic and Cultural Monuments Preservation) before land can be allocated for construction, agricultural and other types of activities in areas containing monuments.

#### **Law on Sanitary and Epidemiologic Security of Population**

This Law defines the legal, economic and organizational basis for provision of sanitary and epidemiological security of the RoA population, as well as the State guarantees, eliminating negative impact of the harmful and dangerous parameters of working area on the human health and makes provision for the creation of favourable conditions for human life and vital activities of future generations.

#### **Law on State Regulation of Technical Safety**

The main purpose of the Law on State Regulation of Technical Safety is to define the State strategic principles and their implementation mechanisms in the field of technical safety, directed to prevention of incidents (and accidents), elimination of their consequences, minimization of the damages and losses arose due to that incidents and protection of population and environment. This Law also defines the legal, economic and social basis for ensuring of the technical safety in the Republic of Armenia, as well as the system of technical safety provision and regulates the relationship connected with technical safety.

#### **Land Code**

In Republic of Armenia the state management of land resources is carried out by the Government of the Republic of Armenia directly or through authorized governing bodies (part 2 of Article 2 of RA Land Code)

As part 1 of article 6 provides, the land fund of the Republic of Armenia is classified according to designated purposes (categories) as follows:

1. agricultural,
2. settlement,
3. industrial, mining and other production designation,
4. energy, transport, communication, utility infrastructure facilities,
5. especially protected areas,
6. special designation,
7. forest,
8. water,
9. reserve.

The lands of utility facilities are the lands that are provided for construction and maintenance of utility, water supply and sewerage facilities, regulating water reservoirs, cleaning stations, pumping stations, **landfills** and other objects (article 18). For protection of human health and natural environment the Government defines maximum allowance norms for detrimental substances polluting land, microbes and other biological substances, weeds, pests and diseases of plants (article 36, part 7). The procedure for providing lands that are under ownership of state or a community is defined by the Government (article 57, part 7).

#### **Law on Local Self-Governing**

The Law on Local Self-Government (LOSG) was adopted on the 7<sup>th</sup> of May 2002 and establishes the structure and authorities of Local Self-Governing Bodies. Article 10 LOSG sets out the powers and competencies of the local self-government bodies and distinguishes between generic competencies and competencies delegated by the State. Generic competencies can be mandatory and voluntary. The mandatory competencies and the ones delegated by the State enjoy priority implementation over voluntary competencies.

The implementation of mandatory and delegated competencies is mandatory. Voluntary competencies are exercised in conformity with the regulations defined by the Community Council and in accordance with the

financing provided for by the community budget. The list of possible voluntary competencies in the LOSG is not exhaustive and additional competencies can be assumed. Other competencies of the local self-government bodies, which are envisaged by other laws, are considered to voluntary competencies. Each article of LOSG granting specific power to the self-governing body also indicates the type of the power.

“Voluntary competencies” must be exercised in conformity with the stipulations defined by the Community Council and in accordance with the financing provided by the community budget.

The Chief of a Community can exercise its competencies by using administrative staff, budgetary organizations, community-owned commercial and the non-commercial organizations (Article 28 of Law on Self-Governing). Private and / or commercial organizations are not mentioned in this provision.

As far as waste management is concerned, the Chief of Community:

- Organizes the construction and exploitation of sanitary cleaning stations (voluntary, Article 37).
- Organizes waste collection (mandatory, Article 37).
- Protects land from the chemical, radiation and industrial contamination (delegated, Article 45).

Article 49 states that the mandatory competencies of the communities are to be exercised through the staff of the Chief of Community, budgetary institutions, commercial and non-commercial organizations. Budgetary institutions are internal departments with an allocated budget for the exercise of their specific given functions and as non-commercial organizations classify as state/community owned public bodies on a non-profit basis.

Since “waste collection” is not a mandatory competency of the Community, it may also opt to actually render waste collection as a basic service. Thus, the service of “waste collection” can be rendered by budgetary institutions of the community (LOSG, Article 60).

If the services of waste collection are to be rendered by a private company, or by any (even if public-owned) commercial organizations, then the Community must organize a tender subject to the applicable procurement law. In accordance with Article 60 paragraph 3, one of the tender conditions (meant are financial variables) must be the “maximum rate of the service payments set by the community”. This cryptic wording must mean that one of the financial variables must aim at keeping the public burden low.

Article 60 paragraph 4 stipulates that if the successful bidder is a commercial organization of community subordination, the payments shall be collected by that organization”. Paragraph 5 stipulates that if the successful bidder is an organization, which is not a property of the community, the community shall conclude an agreement with such organization stipulating the terms and conditions for rendering the services, “rates of payments to be collected by the successful bidder”.

Further, the LOSG regulates in Article 60 that the Community defines payments for waste removal. Waste removal is defined by the LOW as “waste management activities that do not result in recycling of waste”. That means, waste removal can be everything under the umbrella of waste management, apart from recycling. For these “waste removal” activities, the Community Council approves the fees (for the service provision).

#### **Public Health legislation and Regulations**

Article 9 of the RA Law on Waste provides the authorities of the Ministry of Health. According to the mentioned article the Ministry has authority to:

- a) Develop public health safety requirements to be incorporated into the normative- technical documents on waste management; elaborate sanitary and epidemic rules, norms and hygienic standards aimed at prevention of dangerous and adverse effects of waste on human health in the process of waste production, collection, transportation, storage, processing, recycling, removal, disinfection and landfill; oversee implementation of these requirements;
- b) Develop main directions for measures aimed at protection of human health from adverse effects of waste and submit those to the RoA Government;
- c) Give an assent on location sites for the waste management objects;
- d) Provide sanitary-hygienic requirements of output produced from waste and issue hygienic expert opinion;
- e) Participate in development of a risk level classification list of waste;
- f) Carry out other authorities provided by law.

The Article 18 of the Law "on Providing Sanitary-Epidemiological Security for the Population of the Republic of Armenia" states: "Enterprises, institutions, organizations, citizens shall maintain sanitary rules in collection, reprocessing, recycling, disinfection and landfilling of production and household waste".

Based on the mentioned laws among provisions of other legal acts, the following Ministerial Orders have been adopted:

- Ministerial Order No.03-N of 4 May 2008 "On Defining Sanitary Rules and Norms No.2.1.3-3 "Hygienic and Epidemiological Requirements to Medical Waste Management""
- Ministerial Order No.20-N of 29 October 2009 "On Defining Sanitary Rules and Norms No.2.1.7.001-09 "Hygienic Requirements to the Management of Hazardous Waste and Storage and Transportation of Hazardous Chemical Substances".
- Ministerial Order No.25-N of 22 December 2009 "On Defining Sanitary Rules and Norms No.2.1.7.002-09 "Hygienic Requirements to the Sanitary Maintenance of Settlement Territories, Collection, Storage, Transportation, Processing, Reprocessing, Recycling, Disinfection and Landfilling of Municipal Waste, Labor Safety of the Staff engaged in activities in the sphere of Sanitary Maintenance of Settlement Territories, Municipal Waste Management".
- Ministerial Order No.790-N of 30 August 2005 "on Defining Sanitary Rules and Norms "on Storage, Transportation, Using and Selling of Poison-chemicals (Pesticides)".

Ministerial Orders No.20-N of 29 October 2009 and No.03-N of 4 May 2008 sets some general criteria for vehicles (special bulk body) and methods of transportation (hermetic containers) as well as staff (special uniforms). These are applicable for hazardous chemicals and medical waste only. In addition, according to the order No.20-N the design and normative documentation for land provision, construction, reconstruction of objects of collection, temporary storage, disinfection, disposal and landfilling of hazardous chemical waste must be coordinated with State Hygienic and Anti-Epidemiological Inspection that shall conduct hygienic expertise and provide hygienic conclusion. The staff of waste management facilities must pass periodic medical examination in accordance with RA Government Decrees No.347-N dated 12.04.2003 and No.1089-N 15.07.2004.

Although there are some requirements to the waste movement documentation with regard to hazardous waste (RA Government Decree No.97-N of 08 December 1995), the forms and the content are not defined by any authoritative body.

With regard to municipal waste provision 4 of the Annex to the Order No.25-N of 22 December 2009 stipulates that design and technical documents for defining placement sites and construction of municipal waste management facilities (sites or facilities for collection, storage, processing, reprocessing, recycling, disinfection and landfilling) must be coordinated with State Hygienic and Anti-Epidemiological Inspection in accordance with Article 9 of RA Law on Waste and article 12 of the Law on Providing Sanitary-Epidemiological Security for the Population of the Republic of Armenia.

Ministerial Order No.790-N of 30 August 2005 stipulates **hygienic requirements** on storage, transportation, using and selling of poison-chemicals (pesticides). In addition, it provides **requirements on** buildings, vehicles, equipment design, construction, and reconstruction within storage, transportation, using and selling of poison-chemicals (pesticides). Meantime, the State Hygienic and Anti-Epidemiological Inspection is assigned as the authorized supervising body over provision of requirements stipulated by Ministerial Order No.790-N.

#### **Urban Development Legislation**

There is not any normative legal act adopted especially for regulating landfill design and construction. Nonetheless, some legal acts have references to a number of urban development normative documents mentioning requirements to waste management facilities. Meantime, there is "Landfill Design and Exploitation Manual" that was adopted by the Order No.321-A RA Minister of Urban Development (issued on 29 December 2009), which is not a normative act and cannot be considered to regulate the issue in question. Order No.321-A is private legal act. It is considered to be issued for a specific case.

For facilities of hazardous chemical substances and hazardous chemical waste management:

The drainage system of wastewater removed from washing platforms, administrative and utility premises must be in compliance with the requirements of SNIP No.2.04.03-85 "Sewerage: External Networks and Structures" adopted on 1 October 2001 by the order No.82 of Ministry of Urban Development. The illumination of storages of hazardous chemical substances and hazardous chemical waste is carried out in accordance with Building

	<p>Norms No.82 "Artificial and Natural Illumination" adopted by the Minister of RA Urban Development on 8 June 1996.</p> <p>Regulations, rules and technical norms of urban development; nature protection; sanitary; health; safety; fire security, that are devoted for implementation of rights, duties and obligations of the individuals and legal entities prescribed by the law, may be adopted, if the adoption of those legal acts is directly envisaged by the law and should be within the scope of the law as well as should not provide new restrictions of the rights or new duties and obligations.</p> <p>The storages of hazardous chemical substances and hazardous chemical waste must be equipped with heating and ventilation systems in accordance with BNRA (Building Norms of the Republic of Armenia) IV-12.02.01-04 "Heating, Ventilation and Air Conditioning" adopted on 4 August 2004 by the order No.83 of Ministry of Urban Development.</p> <p><u>For facilities for the management of municipal waste:</u></p> <p>Landfilling (disposal) and disinfection of municipal waste is carried out in especially provided sites – landfills (polygons) of municipal waste or in disinfection plants.</p> <p>The dimensions of facilities and land parcels of buildings intended for disposal, disinfection, or processing, reprocessing, recycling of municipal waste that are under construction, reconstruction and the zones of their sanitary maintenance are defined in accordance with SN No.245-71 "Sanitary Norms of Industrial Enterprise Design" and SNIP 2.07.01-89 "Urban Development: Planning and Construction of Urban and Rural Settlements" that are effective in the territory of RA based on Order No.82 adopted by the Minister of RA Urban Development on 1 October 2001.</p> <p>The requirements of SNIP No.2.04.03-85 "Sewerage: External Networks and Structures" adopted on 1 October 2001 by the order No.82 of Ministry of Urban Development are applicable also for washing platforms, administrative and utility premises of municipal waste polygons.</p> <p><u>However, those legal acts can not be considered as binding and cannot get legal repercussions and liabilities for no-compliance as well as authorized body cannot enforce those acts.</u></p> <p><b>Civil Code</b></p> <p>The Civil Code was adopted in 1998 and in general regulates the relationships relating to proprietary rights. This is relevant because this also affects the relationship amongst natural persons, legal entities and State and Local Self-Governing Bodies (Civil Code, Part Two, Articles 20, 50, 128 and 129).</p> <p>The Law on Local Self-Governing Bodies lists the mandatory tasks of the communities, one of which is the "organization of waste collection". Waste collection, according to Article 4 of the LOW includes: removal, sorting and disposal. This waste collection can be based on "Service Contracts", as regulated by Chapter 39, Section 5 of the Civil Code.</p> <p>Accordingly, under the "contract of compensated provision of services", the "service provider" provides the service against the request (order) of the customer to provide this services (or to take specific actions or to conduct a specific activity), while the recipient of the service has the duty to pay for these provided services. This "contract of compensated provision of services" must be concluded in writing. The relevant articles are 289, 290, 294, 295 298 and 777 Civil Code</p>
<p><b>Theme 2</b> <b>Definitions</b></p>	<p>According to Article 4 of RA Law on Waste the hazardous waste – waste having physical, chemical and biological characteristics that are or might be dangerous to human health and environment and require special treatment methods, modes and means.</p> <p>Definitions of pesticides are provided by:</p> <ol style="list-style-type: none"> <li>the RA Ministry of Health Order No.790-N (dated 30th August 2005), according to which the pesticides are chemical, biological products that are used against pest of plants, animals, diseases, weeds and vegetation storages,</li> <li>The RA Government Decree No.195-N (dated 17th February 2011) on adoption of regulation on utilization of useless pesticides according to which pesticides are chemical substances that are used against harmful organisms of plants</li> </ol>
<p><b>Theme 3</b></p>	

<b>Administrative and institutional structure</b>	
<b>Theme 4 Licensing</b>	According to RA Law on Wastes, "Specially Provided Areas" sites where waste can be placed and disposed (landfilled). For landfills, a permit is required. Landfills are specifically mentioned as "licensed landfills", which means a "permit" has been issued as established by law, but no license since licenses to be issued are enumerated in the Law on Licensing
<b>Theme 5 Transboundary movement, import/export</b>	<p>It is considered that the primer legal act is RA Government Decrees No.97 (dated 8 December 1995) on regulation of import, export and transit of hazardous and other waste in the territory of RA.</p> <p>However, the following legal acts applicable for hazardous waste movement within the Republic of Armenia, as well as within transboundary movement:</p> <ul style="list-style-type: none"> <li>- the RA Government Decree No.121-N (dated 30 January 2003) on adoption of rule regarding licensing of the activity with hazardous waste processing or disinfection, or protection, or transportation and disposal</li> <li>- the RA Government Decree No.46-N (dated 05 February 2004) on adoption of rule and establishment of intergovernmental commission regarding licensing of the activity with hazardous waste processing or disinfection, or protection, or transportation and disposal</li> <li>- the RA Ministry of Health Order No.256-N (dated 24 March 2005) on defining sanitary rules and norms "on Rules of Mineral Fertilizer Production, Storage, Transportation and Distribution"</li> <li>- the RA Ministry of Health Order No.790-N (dated 30 August 2005) on defining sanitary rules and norms on the Storage, Transportation, Using and Selling of Poison-chemicals (Pesticides)"</li> <li>- the RA Ministry of Health Order No.03-N (dated on 4 May 2008) on defining sanitary rules and norms N 2.1.3-3 "Hygienic and Epidemiological Requirements to Medical Waste Management"</li> <li>- the RA Ministry of Health Order No.20-N (dated 29 October 2009) on defining sanitary rules and norms No.2.1.7.001-09 "Hygienic Requirements to the Management of Hazardous Waste and Storage and Transportation of Hazardous Chemical Substances".</li> </ul> <p>A statement on transboundary movement of hazardous waste should be submitted to the authorised body of RA. That statement must clearly indicate the information on potential impact on human health and the natural environment within transportation and recycling.</p> <p>If the waste will be exported from RA, the statement must be submitted by the person (entity), who is originator or exporter of the waste. The authorised body study documents on waste and notify country of import and transboundary movement.</p> <p>If the waste will be imported to RA, the statement must be submitted by authorised body of exporting state to the authorised body of RA. After receiving that notification the authorised body of RA inform about receiving authorised body exporting waste and issues permission or reject permission on transboundary movement. Reply must be provided within 60 days if additional information is not necessary</p>
<b>Theme 6 Economic Initiatives</b>	According to RA Law on Environmental Fees, the polluter pays different fees for disposal of each tonne of waste by taking into consideration the type of waste. Physical person (who are not entrepreneurs) is exempted from the fee on industrial and consumption wastes disposal within RA Law on Environmental Fees. Meantime, individuals pay for consumption wastes within RA Law on Waste RA Law on Refuse Collection and Sanitary Cleaning, The RA Law on Waste and the RA Law on Local Self-Governing
<b>Theme 7 Transport</b>	<ul style="list-style-type: none"> <li>- The RA Government Decree No.97, dated 8 December 1995, on regulation of import, export and transit of hazardous and other waste in the territory of RA</li> <li>- The RA Ministry of Health Order No.20-N (dated 29 October 2009) on defining sanitary rules and norms No.2.1.7.001-09 "Hygienic Requirements to the Management of Hazardous Waste and Storage and Transportation of Hazardous Chemical Substances"</li> </ul>

	<p>The RA Code on Administrative Violation (Article 201.2) provides punishment in cases of illegal traffic. That article is applicable if such illegal traffic begets damages, which are not essential.</p> <p>The RA Criminal Code (Article 284) provides punishment if such illegal traffic begets damages, which are essential</p>
<b>Theme 8 Labelling requirements</b>	
<b>Theme 9 Packaging and containers</b>	<p>The only legal act that envisages provisions on containers and storages of the pesticides waste is the RA Ministry of Health Order No.20-N (dated 29 October 2009) on defining sanitary rules and norms No.2.1.7.001-09 "Hygienic Requirements to the Management of Hazardous Waste and Storage and Transportation of Hazardous Chemical Substances"</p>
<b>Theme 10 Emergency procedures</b>	<p>In accordance with Article 24 of the RA Law on Waste the supervision over waste management shall be exercised by the RA Ministry of Nature Protection in the procedure established by law</p>
<b>Theme 11 Disposal obligations</b>	<p>LOW defines "waste disposal" as isolation of waste, which eliminates its further utilization and is aimed at its neutralization and prevention of dangerous substances' emissions into environment. LOW also envisages provisions on quota of waste disposal, which is marginal allowable quantity of a particular type of waste, which depending on the environmental situation of the specific territory, can be placed in the waste disposal structures for a defined period of time in the procedure established by law.</p> <p>Article 7 of LOW sets out obligations for the Government of Armenia (GOA) within waste management that includes:</p> <ul style="list-style-type: none"> <li>• Provision of the waste inventory, generation, removal (elimination, disinfection, disposal) and recycling procedure;</li> <li>• Provision of the procedure on licensing of activities in the area of dangerous waste reprocessing, disinfection, storage, transportation and disposal, as well as carry out licensing of those activities.</li> </ul> <p>For protection human health and environment and for reduction of the waste volumes, Articles 12 envisages that waste disposal quotas shall be set for legal entities and private entrepreneurs involved in the waste management. The mentioned quotas for disposal of waste shall be set by the state authorized body in the area of waste management in accordance with the approved norms of marginal allowable level of impact. Legal entities and private entrepreneurs involved in the waste management shall submit drafts of proposed norms of waste production and disposal to the state authorized body in the area of environmental protection for approval in the procedure provided by the RA Government.</p> <p>Article 21 envisages organizational and economic measures aimed at waste recycling and reduction of production volumes. Such measures are:</p> <ul style="list-style-type: none"> <li>• Provision of waste production and disposal quotas;</li> <li>• Setting of environmental fees for allocation of waste based on payment rates, determined depending on the waste risk level and cadastral price of land given for the waste disposal structure;</li> <li>• Target use of waste disposal fees set by law to finance activities aimed at utilization of waste and reduction of waste production</li> </ul> <p>By the Decree No.2291-N of 09 December 2005, RA Government adopted rule on approval of wastes guidelines and quantity restrictions of wastes disposal. For receiving an approval from authorized body, waste originator must submit an annual report. However, that decree does not envisage any criteria dedicated to ensure reduction of generation of hazardous wastes and other waste by taking into consideration social, technological and economic aspects.</p> <p>RA Code on Administrative Violation (Article 201.1) provides punishment in cases of violation of the rules to inform authorized body about:</p> <ul style="list-style-type: none"> <li>- time of starting and finishing of movement of hazardous wastes and other wastes,</li> </ul>



	- activities on receiving and disposal hazardous wastes and other wastes
<b>Theme 12 Incineration</b>	Only RA Ministry of Health Order No.03-N of 4 May 2008 on defining sanitary rules and norms No.2.1.3-3 "Hygienic and Epidemiological Requirements to Medical Waste Management" envisage provisions on requirements of incinerator of medical waste
<b>Theme 13 Recording, monitoring, and reporting</b>	<p><b>Reporting and recording</b></p> <p>Data reporting is stipulated in a number of legal acts. Specifically, Article 15, part 3 of the Law on Waste states, "The procedure of the waste production, reprocessing and recycling register record keeping shall be provided by the RA Government".</p> <p>The legal framework stipulating obligations for legal entities and private entrepreneurs to submit reports on deferent activities concerned with waste management consists of Government Decrees:</p> <ul style="list-style-type: none"> <li>• No.47-N of 19 January 2006, on adoption of the regulation of passport provision of the waste. It regulates relationships on provision, coordination and issuing of passports of the <b>hazardous waste</b> by legal entities and private entrepreneurial. The purpose of the passport issuing of the hazardous waste is maintenance of environmental requirements, safety waste transportation and transboundary movement, saving of the resources, safety management of the hazardous waste, implementation of appropriate technologies, appropriate decision making, estimation of nature protection fees, implementation of penalties. Passport includes information on hazardous waste types, quantity, scale of dangerousness, substance and resources, characteristics. The head of legal entity issues passport of hazardous waste after having the consent of RA Ministry of Nature Protection.</li> <li>• No.500-N of 20 April 2006, on adoption of the regulation of waste production, reprocessing, recycling structures database provision. The purpose of database provision is maintenance and keeping of correct information on waste production, reprocessing, recycling structures. Database includes appropriate information on recycling structures and characteristics of the waste, which includes information on dangerousness scale of the producing, reprocessing, recycling waste.</li> <li>• RA Government Decree No.1343-N "On Defining the Procedure for Record Keeping on Waste Generation, Removal (Elimination, Disinfection, Disposal) and Recycling", dated 14 September 2006 requires legal entities and private entrepreneurs engaged in waste management to carry out initial record keeping (not reporting) on generation, utilization, removal-elimination, disinfection, disposal of waste as well as waste that is transferred to or received from third parties.</li> <li>• No.1180-N of 13 July 2006, on adoption of the regulation of waste removal areas database provision. The purpose of database provision is maintenance and keeping of correct information and description of waste removal areas. Database includes appropriate information on removal areas and characteristics of removed waste, which includes name, condition, hazardous classes, quantity of the waste.</li> <li>• Ministerial Order No.112-N of 22 August 2002 (RA Ministry of Nature Protection), on adoption of the guide and forms on waste (including hazardous waste) origination, use and removal for statistical data submission. Such form should be submitted to RA Ministry of Nature Protection by the waste originators (legal entities and private entrepreneurs) annually. Forms contain sections for feeling information on types, groups, volume and removing of the waste (including hazardous waste).</li> </ul> <p>The three decrees are expressly stated by the Government Decree No.144-N dated 18 January 2008 according to which the waste state cadaster is created and carried out based on the information provided in accordance with RA Government Decrees No.47-N "On Defining Procedure for Waste Passportization" dated 19 January 2006, No.500-N "on Defining the Procedure of Waste Production, Reprocessing and Recycling Register Record Keeping" dated 20 April 2006 and No.1180-N "On Defining Procedure of Recording of Information in the Register of Places of Waste Removal" dated 13 July 2006. As was mentioned, the information is provided by legal entities and private entrepreneurs engaged in the area of waste handling.</p> <p>The decrees No.500-N and No.1180-N do not require regular reporting at all. These acts oblige legal entities and private entrepreneurs to submit reports to the state authorized body by 1 March 2007 and only corrections to the initially submitted report by 1 March of each consecutive year, which means that waste handling facilities do not submit reports based on these legal acts if the information covered by the initial report remains unchanged. This is the case with Government Decree No.47-N too. The holders of waste passports will have to</p>

	<p>review the passports in case the waste generator has additional or new information on the given waste. Hence the Decree No.47-N does not require regular reporting either.</p> <p>The only requirement for regular (yearly) reporting is stipulated by Ministerial Order No.112-N of the Ministry of Nature Protection dated 22 August 2002. However, this order is binding only for legal entities and private entrepreneurs that are generators of hazardous waste and/or carrying out waste (industrial and consumption waste i.e. non-hazardous) disposal.</p> <p>Meantime, legal entities and private entrepreneurs are obliged to submit periodical state statistical reports in accordance with the following acts:</p> <ol style="list-style-type: none"> <li>1. RA State Statistic Union Decision No.208-N (dated 10 September 2002) on adoption of the form and instruction for annual summary statistic reporting of waste origination, use and removal.</li> <li>2. RA Ministry of Nature Protection Order No.112-N (dated 22 August 2002) on adoption of the form and instruction for annual statistic reporting of waste origination, use and removal</li> </ol>
<p><b>Theme 14 Offences and penalties</b></p>	<p>Illegal circulation of hazardous waste and other waste, which begets non-essential damages, will bring about administrative penalty (RA Code on Administrative Violation (Article 201.2)).</p> <p>Also, RA Criminal Code (Article 284) provides punishment if such illegal traffic begets damages, which are essential</p>
<p><b>Theme 15 Official controls and inspection</b></p>	<p>In accordance with Article 24 of the RA Law on Waste the supervision over waste management shall be exercised by RA Ministry of Nature Protection in the procedure established by law.</p> <p>Meanwhile, the RA Ministry of Health adopts sanitary rules and norms and provides supervision over implementation of those rules and norms</p>
<p><b>Theme 16 Research and development</b></p>	<p>The RA National Action Plan in the Field of Environmental Hygiene, which was adopted by the RA Government Decrees No.1204-N (dated 01 August 2002), contains provisions on pesticides waste prevention action as well</p>



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

### Topic 1 – Pesticides Manufacturing Industry

*Are there pesticides manufacturers in the country?*

There is no official information in that regard.

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

- Provision of registration
- Provision passportization
- Submission of reports to the authorised body
- Payment of fees
- Maintenance of sanitary rules and norms

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

Waste disposal quotas shall be set for legal entities and private entrepreneurs involved in the waste management in accordance with Article 12 of RA Law on. Quotas for disposal of waste shall be set by the state authorized body in the area of waste management in accordance with the approved norms of marginal allowable level of impact. Legal entities and private entrepreneurs involved in the waste management shall submit drafts of proposed norms of waste production and disposal to the state authorized body in the area of environmental protection for approval in the procedure provided by the RA Government.

According to Article 23 of the RA Law on Waste, "To promote activities aimed at recycling of waste and reduction of waste volumes, legal entities introducing waste volume reduction technologies during collecting, storing of waste and putting up the waste management structures while producing goods (implementing works and rendering services), as well as those producing waste volume reduction equipment/installations, having share participation in waste recycling or financing activities to reduce waste production volumes may be granted privileges in the procedure established by law".

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

There is no official information in that regard

### Topic 2 – Management of Obsolete Pesticides Stocks

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

See Part II, under 2. Inventory

Storage and disposal activities are being developed within the GEF/UNDP Project for the Nubarashen Pesticides Landfill.

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

See Part II, under 2. Inventory

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

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

At present no treatment is taking place. Plans are being made within the GEF/UNDP Project for treatment for the Nubarashen Pesticides landfill

## 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?*

For the organization of waste disposal in RA the following legal acts work simultaneously or partially:

- The Constitution of the Republic of Armenia
- The Civil Code
- The Law on Waste
- The Law on Refuse Collection and Sanitary Cleaning
- The Law on Local Self-Governing
- The Law on the Self-Governing in the City of Yerevan
- The Law on Local Duties and Fees
- The Law on Government Multi–Apartment Buildings
- The Law on Condominiums
- The Law on Licensing
- The Law on Environmental Impact Assessment
- The Law on Public Procurement
- The RA Government Decree No.2291-N (dated 09 December 2005) on adoption of normative of waste origination and forms of calculation models of the projects regarding waste disposal limits
- The RA Government Decree No.500-N (dated 20 April 2006) on adoption of the rule on waste production, reprocessing and recycling register record keeping
- The RA Government Decree No.1180-N (dated 13 July 20 2006) on adoption of the rule on recording of waste removal sites
- The RA Government Decree No.1343-N (dated 14 September 2006) on adoption of the rule on recording of waste origination, removal (elimination, disinfection, disposal) and recycling
- The RA Government Decree No.1739-N (dated 13 December 2006) on adoption of rule of the waste state inventory
- The RA Government Decree No.144-N (dated 18 January 2007) on adoption of the rule on provision of waste state cadaster
- The RA Ministry of Nature Protection Order No.387-N (dated 24 November 2006) on adoption of the forms of registry sheet on waste removal sites and recordkeeping book
- The RA Ministry of Nature Protection Order No.387-N (dated 24 November 2006) on adoption of the forms of registry sheet on waste removal sites and recordkeeping book
- The RA Ministry of Nature Protection Order No.97-N (dated 27 April 2007) on adoption of normative of waste origination and forms of calculation models of the projects regarding waste disposal limits
- The RA Ministry of Nature Protection Order No.96 (dated 10 August 1999) on adoption of list of regulated and unregulated waste, hazardous features, statement submission, notification and removal action documents

*Are there any disposal facilities in the country?*

See Part II under 7. Disposal.

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

See Part II under 7. Disposal

### Topic 2 – Storage facilities

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

No.

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

Not applicable.

*Does the legislation establish different rules for storage hazard waste? Please provide the differences.*

The drainage system of wastewater removed from washing platforms, administrative and utility premises must be in compliance with the requirements of SNIP No.2.04.03-85 "Sewerage: External Networks and Structures" adopted on 1 October 2001 by the order No.82 of Ministry of Urban Development. The illumination of storages of hazardous chemical substances and hazardous chemical waste is carried out in accordance with Building Norms No.82 "Artificial and Natural Illumination" adopted by the Minister of RA Urban Development on 8 June 1996.

The storages of hazardous chemical substances and hazardous chemical waste must be equipped with heating and ventilation systems in accordance with BNRA (Building Norms of the Republic of Armenia) IV-12.02.01-04 "Heating, Ventilation and Air Conditioning" adopted on 4 August 2004 by the order No.83 of Ministry of Urban Development

### **Topic 3 – Recycling facilities**

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

There is no appropriate information in that regard in the State's official database of legal acts

### **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?*

There are no recovery facility for pesticides waste in the country.

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

Not applicable

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

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

**1. Institutional arrangements**

Responsibilities in the country

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

Yes

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

29.08.2013, meets 1 time per year

National Body Representation	Responsible Ministry	Contact person (name/contact details)	Activity and outcome	No. of reference/ annex if needed
<b>SAICM focal point</b>	Ministry of Nature Protection of the RA (MoNP)	Anahit Aleksandryan, Head of Division Hazardous Substances and Wastes Management Division MoNP tel.: (+374 10) 53 88 38 email: <a href="mailto:anahit_aleksandryan@yahoo.com">anahit_aleksandryan@yahoo.com</a>	National Chemicals Profile (2009)	
<b>GEF Focal Point /Coordinating Unit</b>	Ministry of Nature Protection of the RA (MoNP)	Mr. Aramays Gregoryan Political/Operational Focal Point) Government Bldg., 33, Republic sq., Yerevan – 0010 Armenia tel.: + 37410 52 10 99, tel./fax: +37410 58 54 69 email: <a href="mailto:interdept@yahoo.com">interdept@yahoo.com</a> , <a href="mailto:min_ecology@yahoo.com">min_ecology@yahoo.com</a>	Global Environment Fund (GEF) – financial support by the "Persistent Organic Pollutants" National Action Plan Coordination of all GEF financed projects	[1]
<b>Stockholm Focal Point/POP Centre</b>	Ministry of Nature Protection of the RA (MoNP)	Anahit Aleksandryan, Head of Division Hazardous Substances and Wastes Management Division MoNP tel.: +(374 10) 53 88 38 email: <a href="mailto:anahit_aleksandryan@yahoo.com">anahit_aleksandryan@yahoo.com</a>	Convention Ratified (2003), NIP (2005)	[2]
<b>Basel Focal Point</b>	Ministry of Nature Protection of the RA (MoNP)	Anahit Aleksandryan, Head of Division Hazardous Substances and Wastes Management Division MoNP tel.: +(374 10) 53 88 38 email: <a href="mailto:anahit_aleksandryan@yahoo.com">anahit_aleksandryan@yahoo.com</a>	Implementation of the provisions of the convention Notifications for the transboundary shipment of POPs Convention Ratified (1999)	[3]

<b>Rotterdam Focal Point</b>	Ministry of Nature Protection of the RA (MoNP)	Anahit Aleksandryan, Head of Division Hazardous Substances and Wastes Management Division MoNP tel.: +(374 10) 53 88 38 email: <a href="mailto:anahit_aleksandryan@yahoo.com">anahit_aleksandryan@yahoo.com</a>	Implementation of the provisions of the convention Notifications for the transboundary shipment of POPs Convention Ratified (2003)	[4]
<b>FAO National Focal Point</b>	Ministry of Agriculture (MoA)	FAO Representation in Armenia Antonio Alonzi, Residing in Hungary, FAO Representative Tony.Alonzi@fao.org Gayane Nasoyan, Assistant FAO Representative tel.: +(374 10) 52 54 53 email: <a href="mailto:FAO-AM@fao.org">FAO-AM@fao.org</a>	The Government of Armenia and FAO, through consultative meetings, agreed that the FAO-Government of Armenia cooperation should focus on the following six priority areas over the Country Programming Framework (CPF) cycle, 2012–2015. Enhanced Livelihoods and Competitiveness of Small-scale Farmers, Animal Health and Production, Crop Production and Plant Protection, Forestry Development of Fisheries and Aquaculture, Agricultural Statistics	
<b>EU/other project implementation units for hazardous waste</b>	Ministry of Emergency Situations (MoES) Ministry of Nature Protection of the RA (MoNP)	Contact: OSCE, Edward Safaryan, email: <a href="mailto:Edvard.Sfaryan@osce.org">Edvard.Sfaryan@osce.org</a> ;  Advisors for SPS are Lidia Nechaieva and Viktors Grapmanis, e-mail: <a href="mailto:LNecajeva@euadvisorygroup.eu">LNecajeva@euadvisorygroup.eu</a> <a href="mailto:VGrapmanis@euadvisorygroup.eu">VGrapmanis@euadvisorygroup.eu</a>  The Regional Program Director is Andrew McCartor, email: <a href="mailto:drew@blacksmithinstitute.org">drew@blacksmithinstitute.org</a>	Site Assessment and Feasibility study of POPs and Obsolete Pesticides burial site in Nubarashen, Armenia – OSCE project  TA project, "EU Advisory Group to the Republic of Armenia – Phase III" Global TA project, "Toxic Sites Identification Program" funded by the World Bank and European Commission, managed globally by Blacksmith Institute and implemented in Armenia by American University of Armenia	
<b>Inter-departmental committees</b>	Ministry of Nature Protection of the RA	Interdepartmental committee on hazardous waste treatment, disposal, storage, transportation and the licensing of the treatment plant	Purpose committee: giving an expert opinion and advice about hazardous waste treatment, disposal, storage, transportation and installation activities	Decision of the Prime Minister 05.02.2004 No.46N
<b>Other national coordinating body</b>	Ministry of Nature Protection of the RA	Wastes Research Center SNCO head: Suren Aslikyan tel.: +37410 55-48-35	Ecological security and the implementation of policies and strategies for	Ministerial order

		email: <a href="mailto:wasteresearch@mail.ru">wasteresearch@mail.ru</a> Waste and Atmosphere Emissions Management Agency Head: Eghish Terteryan tel.: +(374 10) 55 57 50	environmentally sound management of process waste, reducing waste volumes and their harmful effects on the environment to support prevention	
<b>National waste focal point</b>	Ministry of Nature Protection of the RA	Hazardous Substances and Waste Policy Division	Chemical and waste management, public policy and development strategies, and monitoring their implementation	Ministerial order
<b>PRTR Protocol</b>	Ministry of Nature Protection of the RA	Ms. Nune Hovhannisyan Head of Division, Focal Point of PRTRs Protocol tel.: +374 93 26 00 73 email: <a href="mailto:nune_h@yahoo.com">nune_h@yahoo.com</a>	RA in 2003 signed but not ratified Guidance on Implementation of the UNECE PRTR Protocol (2008 OSCE)	Ministerial order

**Other information:**

Interagency Steering Committee for the project GCP/RER/040/EC created in Armenia by decision of the Minister of Agriculture No.162-A of 29.08 2013.

Interdepartmental working group on threats management of pesticide landfills and tailing dumps, Order of the Minister for Emergency Situations No.9A of 18.01.2011.

Steering committee of the project – “Elimination of expired pesticides and remediation of contaminated sites from persistent organic pollutants” by UNDP, GEF, MoNP – was established in 2013.

22.09.2003 No.452-A in the Prime Minister's decision on the establishment of a The Working Group on the Regulation of the destruction of expired plant protection products and unusable chemicals and the development of programs to fund the destruction

<p><b>2. Inventory</b> If references needed please provide in the concerned Annex</p>
<p><b>2.1 National/regional inventory updated</b> <i>(latest update and methodology, e.g. National guideline/NIP/World Bank/UNEP/FAO toolkit)</i> NIP – GEF, UNIDO, MoNP. Update has been made in April 2014 in the frame of the GCP/RER/040/EC Project</p>
<p><b>2.2 Data sources and existing inventories (only Obsolete Pesticides)</b> <i>(who, what, when, how, accuracy, validity?)</i> The first assessment of the former storage facilities of Pesticides was carried out in 2002-2005 in the frame of the project GEF/UNIDO – Enabling Activities to Facilitate Early Action in the Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) Report AGRO summary ENG-1 RJC Analysis 13.08.05 Monitoring result from Ministry of Agriculture Inception mission of Milieukontakt International 2006 EECCA Mini grant: Table of OP stores inventoried by Vet agro in 3 Armenian regions – 2012. By order of the Armenian office of the UN, with the help of an independent expert has carried out monitoring of former regional warehouses of the Scientific-Production Association "Armplodorodie" in May-June 2013 In the frame of the GCP/RER/040/EC Project a field inventory of Obsolete Pesticides in Armenia was planned. This field inventory took place during the months of April 2014. Obsolete pesticides in Armenia include – Solid pesticides, Liquid pesticides, Solid pesticides mixed with dirt/dust in pile, Dendrobacilin/Benzoic acid/contaminated soil and fertilizers in piles; empty containers, wooden pallets and boxes (solid pesticides in kg – 21,360 kg, liquids in liter – 14306 l, solid pesticides mixed with dirt/dust in pile – 320 m<sup>3</sup>, dendrobacilin, benzoic acid, fertilizers mixed with contaminated soil – 326 m<sup>3</sup>). By decree N 86-A, 04.04.2014 of the Minister of Agriculture, an obsolete pesticides and contaminated areas inventory working group was created</p>
<p><b>2.3 First National Implementation Plan (NIP)</b> <i>(e.g. responsible, year, No.of sites, estimated tons, desk study/field surveys (% of total locations), POPs pesticides, PCB and Dioxins)</i> National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants in Armenia MoNP, UNIDO, GEF, in 2005 About 650 tonnes of POPs pesticides in 2005</p>
<p><b>2.4 NIP update (specifically on new POPs)</b> <i>(e.g. responsible, year, No.of sites, estimated tons, desk study/field surveys (% of total locations))</i> No. Currently the work is underway for developing a new NIP</p>
<p><b>2.5 UNITAR Chemicals Profile</b> <i>(e.g. responsible, data on organic hazardous waste available?)</i> Updating a National Chemicals Management Profile MoNP, UNITAR, SAICM, in 2009 Actions for the National Profile on Chemicals management were prepared and data available for 2004-2008 provided a comprehensive review of the capacities required for implementing SAICM</p>
<p><b>2.6 National Pesticides/POPs inventory</b> <i>(e.g. responsible, other inventories independent from Convention frameworks)</i> MoA</p>
<p><b>2.7 FAO PSMS inventory</b> A national inventory according to FAO requirements was not carried out in the country</p>

**Inventory Implementation:** was done only in April 2014 in the frame of the GCP/RER/040/EC Project (14 days field inventory and 5 days PSMS data entry and collection).

1. **inventory training** Yes / MoA, MoNP, AWHHE NGO
2. **inventory work plan** Yes
3. **inventory field visits and data collection** Yes
4. **inventory data entry into PSMS** Yes (26 sites were to be loaded in PSMS- Inventory in April 2014)
5. **inventory data validation – stocks and contaminated sites** Yes

**Other information:**

The first project that used FAO field forms for obsolete and POPs pesticides in a pilot regions was the FAO, IHPA, Green Cross and Milieukontakt International project “Capacity Building on Obsolete and POPs Pesticides in Eastern European, Caucasus and Central Asian (EECCA) Countries” in 2012. The project was financed by GEF, Green Cross and USAID.

In the frame of the GCP/RER/040/EC Project – The preparation and execution of this field inventory were done according to international standards making use of FAO standard field forms and instruction materials. In total 31 sites have been visited during inventory 7-19 April 2014 and 26 sites discovered during the inventory process.

There are some issues related to open access to information in respect of obsolete pesticides



### 3. Environmental Assessment

If references needed please provide in the concerned Annex

#### 3.1. National requirements

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

EIA according to the national law. Now a new law of the “Environmental Assessment and expertise” is approved/adopted in the July 2014

The law is applied in practice, but there are no corresponding mechanisms and related regulations that would allow the public opinion have a significant impact on the final decision.

There is no general format for Environmental Assessment

There is no procedure for participation of the society

#### 3.2. International experience

*non-FAO – WB, UNDP CESA etc.*

Yes. In addition to FAO and World Bank, also UNDP has experiences. They are working according to GEF requirements

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

*Are there consultants or government trained people?*

Yes. National consultants

#### 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)*

In total, there are 26 sites containing obsolete pesticides. In some sites there are contaminated soil and materials which will be assessed during 2015 according to the new Toolkit which has been elaborated by the Black Smith Institute, implementing partner organization of the GCP/RER/040/EC project – “Rapid Environmental assessment” According to the FAO Environmental Toolkit priority sites have been identified

#### Other information:

22-23 April, 2014 – training was organized on Rapid Environmental Assessment by Black Smith Institute

<p><b>4. Inventory and Environmental Assessment Management</b> If references needed please provide in the concerned Annex</p>
<p><b>4.1. Responsible Organisation for Inventory and Assessment in place and operational</b> MoA, MoNP</p>
<p><b>4.2. All managers/coordinators/field people in place and operational</b> Yes. MoA – 3 persons, MoNP – 2 persons</p>
<p><b>4.3. All Field teams established and operational</b> Yes. MoA, Ministry of Emergency Situations</p>
<p><b>4.4. All Inventory data management people in place and operational</b> Yes. MoA – 8-10 persons, MoNP – 2 persons</p>
<p><b>4.5. National/Regional Inventory updated</b> Yes, 2013/2014</p>
<p><b>4.6. National Pesticides/POPs Inventory Established</b> Yes. 2005, last update 2013/2014</p>
<p><b>4.7. Contaminated Sites Register</b> Yes</p>
<p><b>Other information:</b> Inventory currently underway</p>

<p><b>5. Safeguarding</b> If references needed please provide in the concerned Annex</p>
<p><b>5.1. National projects</b> No</p>
<p><b>5.2. International projects</b> Yes, at the Nubarashen Pesticides Landfill, after the opening of this landfill, the Armenian government has reinstalled a drainage system and has fenced off the landfill and its contaminated surrounding. This is a temporary measure and is expected to last till the planned GEF-UNDP project will be implemented. Expectation during 2017</p>
<p><b>5.3. FAO projects</b> Now – GCP/RER/040/EC</p>
<p><b>Other information:</b> A safeguarding operation was never carried out in Armenia</p>

<p><b>6. Storage and transport</b> Packaging / Containerization / Storage / Transportation</p>
<p><b>6.1. Transport regulations</b> <i>In-country transportation planning competences available?</i> (e.g. ADR/IMDG/RID/DOT compliant, route planning, scheme, vehicle inspection scheme, certified local contractors) Yes. ADR. Government decision No.97 by 08.12.95 – Import and export of hazardous and other wastes, to regulate the transportation of transit goods</p>
<p><b>6.2. Driver regulations</b> <i>Driver registration</i> Yes</p>
<p><b>6.3. Storage regulations</b> <i>(Seveso – off and on site emergency planning)</i> No</p>
<p><b>6.4. Storage capacity</b> <i>Private or government, collection centers available, (e.g. responsible, No. of suitable collection centers identified)</i> No</p>
<p><b>6.5. Incident reporting and accidents</b> Yes. National requirements</p>
<p><b>Other information:</b></p>

<p><b>7. Disposal</b> Note: Map 7 (for benchmarking)</p>
<p><b>7.1. National experience</b> The Republic of Armenia has not obtained such experience</p> <p><b>Technology selection</b></p> <p><b>Transboundary transport under Basel Convention</b></p> <p><b>National transport</b></p> <p><b>Disposal capacities in Country</b> <i>(e.g. type and number of disposal facilities, (landfill/destruction) permits, quality and standards applied (national/international), ownership (public/private), contact details)</i> No.</p> <p><b>Project examples</b> <i>(e.g. name project, tons, year, landfill or destruction facility, responsible authority (if possible, contact details)</i> No</p>
<p><b>7.2. International experience</b> Such actions have not been implemented</p> <p><b>Technology selection</b></p> <p><b>Transboundary transport under Basel Convention</b></p> <p><b>National transport</b></p>
<p><b>7.3. Experience with FAO</b> None</p>
<p><b>Other information:</b> A disposal operation was never carried out in Armenia</p>

8. Containers
<p><b>8.1. National experience</b> Not treated separately</p>
<p><b>8.2. International experience</b> <i>(e.g. Priorities on containers in NIP Action Plan)</i> No. Separate priorities in between PCBs and obsolete pesticides in the NIP</p>
<p><b>8.3. FAO supported plan</b> Planned In the frame of the GCP/RER/040/EC Project</p>
<p><b>8.4. Amount and type of empty containers/packaging materials?</b> <i>(e.g. materials recycling in types, amounts)</i> Not separate</p>
<p><b>8.5. Collection Centres for empty containers?</b> <i>(e.g. Quantity of centres, responsibility, compliant with FAO guidelines?)</i> Not the case</p>
<p><b>Other information:</b> The representative of the Ministry of Agriculture emphasized the importance of this problem in a technical working committee and the second meeting of the Steering Committee of the program GCP/RER/040/EC (November 2013 in Kiev). In the frame of the GCP/RER/040/EC Project empty containers (375 units) and wooden pallets and boxes (114 units) have been calculated</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	
<b>I. Summary for all waste streams</b>	Armenia has the following amount of hazardous waste: <ul style="list-style-type: none"> <li>• 605 tons of obsolete pesticides (including POPs pesticides) in Burial sites (according to Tauw data)</li> <li>• 150 tons OPs in storage sites</li> <li>• Over 100 tons of expired medicines</li> <li>• Over 1,720 tons of PCBs contaminated oils = Industrial POPs. For the contaminated soils, the quantity in the Nubarashen Burial site is 8,578 tons</li> <li>• The information on other contaminated areas is limited to 1.3-1.5 ha and nation-wide incomplete</li> <li>• More data will be available during the next years due to the works of Black Smith Institute</li> </ul>		605  150 100 1,726  8,578	<a href="http://www.pops.int/documents/implementation/nips/submissions/NIPArmenia.pdf">http://www.pops.int/documents/implementation/nips/submissions/NIPArmenia.pdf</a>
<b>A. Agricultural chemical waste:</b> (see also parts already been filled in in the benchmarking section)				
<b>1. Obsolete pesticide waste</b>	In storages: 150 tons /on monitoring data that were made in the former regional repository "Hayberutyun" Scientific Production/ Nubarashen Burial site: In the 5 burial cells: 605 tons of obsolete pesticides (incl. POPs pesticides) The 1st category of obsolete pesticides installed outside of the burial cells 235 tons. All of OPs in Armenia over 990 tons (≈1000 tons)		990	Country Project (GCP/RER/040/EC) Operational Manual  Tauw. UNDP GEF

<p><b>2. POPs pesticide waste:</b>  <i>aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene (HCB*), mirex, toxaphen, chlordane, alpha hexachlorocyclohexane (α-HCH)<sup>1</sup>*, beta hexachlorocyclohexane (β-HCH)*, lindane, pentachlorobenzene*</i></p>	<p>Nubarashen Burial site:          POPs part of the total in the 5 burial cells: 284 tons          The POPs in installed outside of the burial cells: 110 tons (in the 1st category obsolete pesticides)          All of POPs in Armenia over 394 tons (≈ 400)</p>	394		Tauw. UNDP GEF
<p><b>3. New pesticides waste (incl. fake (counterfeit) pesticides)</b></p>	<p>According to our data imported pesticides in Armenia fully used and new pesticide waste do not occur</p>			MoA, MoNP
<p><b>4. Empty containers waste</b></p>	<p>No definitive information. Not treated separately</p>			
<p><b>5. Contaminated sites</b></p>	<p>1.3-1.5 ha          More data will be available during 2015 due to the works of Black Smith Institute</p>			
<p><b>a. Burial sites (polygons)</b></p>	<p>In Nubarashen burial site pesticides are dumped in five separate cells. Around 605 m<sup>3</sup> of pure pesticides is still present in these five cells, the clay bottom of the pits is contaminated; the expected volume is 29 m<sup>3</sup>. In additional, approximately 1,127 m<sup>3</sup> of heavily contaminated soil with traces of pure pesticides is present in the hillock. Surrounding the landfill, within the fence, is a barren area of around 0.6 hectares. The topsoil of this area is (heterogeneously) heavily contaminated with pesticides till a depth of at least 0.5 m. The in-situ volume of the surrounding contaminated topsoil is estimated at around 3,000 m<sup>3</sup> Estimated quantities of the contaminated soil and the pure pesticides present at the landfill site.</p> <p>In the Nubarashen Burial site the total volume of <b>contaminated soils is 8578 tons.</b></p> <ul style="list-style-type: none"> <li>Contaminated top soil with traces of pure pesticides fenced area landfill site 3,000 m<sup>3</sup> – (5,100 tons)</li> <li>Slightly contaminated top cover landfill body 890 m<sup>3</sup> (1,513 tons)</li> </ul>	605	605	<p>Site Assessment and Feasibility Study of the Nubarashen Burial Site of Obsolete and Banned Pesticides in Nubarashen, Armenia          By Tauw, for OSCE, 2013</p>

<sup>1</sup> HCH is often used in Russian as HCCH.

	<ul style="list-style-type: none"> <li>Heavily contaminated top soil with traces of pure pesticides in landfill body 1,127 m<sup>3</sup> (1,916 tons)</li> <li>Contaminated soils at the bottom of cells 29 m<sup>3</sup> (49 tons)</li> </ul>			
<b>b. Storage sites</b>	Approximately 0.5-0.7 hectares of contaminated areas are available on the former warehouses "Hayberutyuan" and territories around them More data will be available during 2015 due to the works of Black Smith Institute			
<b>c. Usage sites</b> (airfields, formulation plants etc.)	No data available			
<b>B. Industrial chemicals:</b>				
<b>1. POPs</b> <i>a. PCBs, HCB*, hexabromobipheny (HBB), hexabromodiphenyl ether and heptabromodiphenyl ether, pentachlorobenzene*, perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, tetrabromodiphenyl ether and pentabromodiphenyl ether (penta-BDE)</i> <i>b. brominated industrial chemicals</i> <i>c. Fluorinated industrial chemicals perfluorooctane sulfonyl fluoride (PFOS) and its salts and perfluorooctane sulfonyl fluoride (PFOSF)</i>	<p>According to the MoNP this information is in ongoing accounting process and will be provided at a later date.</p> <p>According to the Inventory carried out in energy sector of the Republic of Armenia, there are about 16,754 tons of oils. However only 1,726 tons need to be disposed. For Explanation of quantity, please see footnote<sup>2</sup></p>		1726	According to data from the MoNP
<b>2. Contaminated sites</b> e.g. Contaminated containers, transformers and equipment	No definite information			
<b>3. Oily wastes</b> e.g. non-POPs production waste, lagoons of sediments and sludges, solvents, waste lubricating oils				

<sup>2</sup> Comment from Ms. Anahit Aleksandryan, 09-12-2015:

Data indicated by you is old based on inventory of oils (in 2002-2003) and there was specified that "The revealed amounts of oils, which probably contain PCBs..."

Analyzes for PCBs performed in 2008-2010 in the energy sector of Armenia and the follow-up extrapolation identified the following

PCB contamination	<50ppm	50-500ppm	500-2000ppm	>2000ppm	Total
Weight of oil (ton)	15028	1636	15	75	16 754

As obvious from the Table, out of total 16 754 tons of transformer oils, only 1726 tons contain PCBs above 50 ppm and are subject for destruction (treatment).



<p><b>4. Inorganic wastes</b> Solid , Liquid and sludge inorganic waste (often in many country with mining activities and metal industries)</p>	<p>There is no information about solid waste accumulation Solid, liquid and sludge wastes in our country are not considered wastes. Additionally, there are also man-made mines so called Land mines, according to The Mining laws of the Republic of Armenia</p>			<p>Ministry of Energy and Natural Resources RA Control Chamber (current report by the Council of 14 February 2012, No.3/4)</p>
<b>C. By-products</b>				
<p><b>1. Unintentional POPs</b> <i>Dioxins: Polychlorinated dibenzo-p-dioxins (PCDD) and Polychlorinated dibenzofurans (PCDF) and PCBs. Indicate sources like Pulp and paper production, Chlorinated inorganic chemicals, Chlorinated aliphatic chemicals, Chlorinated aromatic chemicals, Other chlorinated and non-chlorinated chemicals, Petroleum industry, Textile production, Leather refining</i> <i>Contaminated Sites and Hotspots: e.g Sites used for the production of chlorine, Production sites of chlorinated organics, Application sites of PCDD/PCDF containing pesticides and chemicals, Use of PCB, Use of chlorine for production of metals and inorganic chemicals, Waste incinerators, Metal industries, Fire accidents, Dredging of sediments and contaminated flood plains, Dumps of wastes/residues from source groups, Kaolin or ball clay sites</i></p>	<p>To be determined</p>			
<p><b>2. a-HCH*, b-HCH* (being generated from the Lindane production) and pentachlorobenzene*</b></p>	<p>To be determined</p>			
<p><b>3. HCB*</b> generated from PVC production and rubber tyres production</p>	<p>To be determined</p>			
<p><b>D. Petroleum wastes</b> Tarry and bituminous wastes, still bottom waste (from Distillation plants)</p>	<p>To be determined</p>			
<p><b>E. Inorganic wastes</b> Liquid and sludge inorganic waste Solid inorganic waste</p>	<p>To be determined</p>			
<p><b>F. Health Care Risk Waste</b></p>	<p>Credible information is not available, but some of the information sources stated are there over 100 tons of expired medicines</p>		<p>100</p>	

Summary volumes				
<b>Estimate of total hazardous waste market (watch need tonnes/year)</b>				
<b>POPs waste volume</b>	Total POPs waste: 18,400 tons 1. the quantity of POPs Pesticides in Armenia today approximately 400 tons. 2. 1,726 tons of PCB contaminated oils		18,400  1,726	
<b>Other information added to this table:</b>	In the main sources of information about waste, there is no accurate information on the number and specific types			
<p><i>*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!</i></p>				



<b>Section III: Existing and planned treatment options for POPs pesticides, obsolete pesticides and related hazardous wastes, contaminated land</b>				
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> )	No.of reference /annex if needed
<b>1. Existing plants</b> <i>e.g. existing and functioning hazardous waste landfills (polygons) or soil treatment plants</i>				
<b>General info about cement kilns</b>			Cement production facilities are available but in general the businesses is not very much interested in the destruction of hazardous waste and that is not advisable for Armenia. However, in order to find out whether these cement plants are able do this work and how it will affect the environment, an in-depth study is needed and it is yet unclear if the owners of the cement plants will agree or not	
<b>1. Private owned</b>				
<b>2. Government owned</b>				
<b>2. Potential plants</b> <i>e.g. existing modern cement kilns and collect all data, photos, schemes, interest of companies to deal with OPs and POPs waste and contaminated soil destruction) Details include in Annexes</i>				
<b>1. Private owned</b>				
<b>2. Government owned</b>				
<b>3. Planned facilities</b> <i>Government and or privately planned new hazardous waste facilities e.g. for treatment of oil waste in oil and gas industry</i>				
<b>1. Private owned</b>				
<b>2. Government owned</b>				
<b>4. Planned and/or implemented pilot plants</b> <i>e.g. as part of research programmes in cooperation with donors/universities/research institutes pilot plants that are being tested for hazardous waste and soil</i>				
<b>1. Private owned</b>				
<b>2. Government owned</b>				

<b>5. Existing and/or planned empty container (plastic and or steel) recycling facilities/initiatives</b> <i>Steel recycling e.g. at existing steel industry and plastic at existing plastic industry</i>			
<b>1. Private owned</b>			
<b>2. Government owned</b>			
<b>6. Any other information related to important market players in this field</b> <i>List names of the major market players with address and main address/location, Contact person (name/contact details) and indicate their main interest</i>			



### 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 Indicate main ports/railway stations etc. and supply maps where possible	Cost indications Problems to be expected	No.of reference /annex if needed
1. In country 2. In foreign country	Such experience is not present			
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

Not available

#### 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 1. Benchmarking under 6. Storage and transport and 7. Disposal

There is legislation regulating but there is no licensed specialized transport companies in this field

#### 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 1. 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

Not available

Case 1:

Case 2:

## Summary sheets on findings

### - Identify the gaps in information

- The Republic of Armenia has a very successful Freedom of Information law. But there are many gaps in the implementation legislation.
- There is no clarity about what information the public authority has on hazardous materials and waste management.
- Until now, the country has no register for hazardous waste, which is available for the public.
- There is no national database on emissions of releases and there is no Pollutant Release and Transfer Register (PRTR) yet.
- The NIP is not available in the electronic version in the national language but the printed version is available in the Ministry of Environment.
- There are difficulties related to access to information and it is proposed that the government makes easier and better access to the relevant information.
- There is no information on hazardous materials and waste impact on human health.
- The RA does not have any website in national language that contains complete information about hazardous wastes and obsolete pesticides

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

- In the Armenia there is a low level of public participation and access to information of this area. There is only one non-governmental (NGO AWHHE) organization working in this area. Unfortunately, very few people are aware of the information in this area: this indicates that these works are not carried out transparently. There is no reliable information Impact of hazardous waste on human health. Existing gaps in the legislative field and no full implementation of existing legislation.
- Weak involvement of communities and local authorities and being unaware of the hazardous waste management process.
- There is no performance report for NIP implementation and the NIP was not updated.
- Relevant economic mechanisms, to encourage the destruction of expired chemicals by private companies have not been created. Poorly controlled open burning process for solid waste and synthetic waste

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

- Lack of legal acts defining Armenia's national environmental policy, which would guarantee complex management of separate components of the environment and ensure uniform approaches addressed to the solution of issues of general nature as envisaged under international agreements, such as development of policies, programs, strategies and reports, sustainable development and management (use and preservation), implementation of standards, methods and norms, transfer, exchange and application of technologies, implementation of monitoring and studies, collection, presentation and exchange of information, involvement and awareness of the public in decisions making in the sphere of environment etc.
- There is a lack of specially designed facilities for domestic waste disposal, which will meet the sanitary-hygiene requirements. Industrial and domestic waste is not collected separately. Practically all types of waste are transported to and disposed at the same urban and rural landfills without any pre-treatment and/or sorting. Another pressing issue is the ecologically safe disposal of expired medical and unusable chemicals, pesticides, medications, as well the waste containing persistent organic pollutions (oils polluted with polychlorinated biphenyls).
- The transport and elimination of pesticides to another country depends on the transportation possibilities, to EU countries.
- Environmentally Sound destruction methods in the country, without damaging the environment and human health, by such companies and capacities, which comply with international requirements and ensure environmental and health standards should be ensured.
- In order to accomplish these activities, RA will need the external technical and financial support.
- Transfer of international experience and control of the process must be ensured

### - Other findings that need to be addressed

The main principles and directions of the state policy in the field of waste management are defined for alternative use and reuse of wastes, referred to as a means of reducing risks (The Law about the Waste RA, Article 6, subarticle 2, paragraphs 3 and 4). But there are no corresponding mechanisms for the implementation. For example, in 2006 with the support of the OSCE, highly explosive missile fuel has been neutralized and turned into fertilizer <http://www.osce.org/yerevan/48893>

## REFERENCES

**Reference 1** with explanations: The Project “Elimination of obsolete pesticide stockpiles and addressing POPs contaminated sites within a sound chemicals management framework in Armenia”. It is a Global Environment Facility (GEF) project with UNDP as the GEF Implementing Agency that was first approved for preparation in February 2012 and received approval for grant funding of US\$4.7 million with a co-financing commitment of US\$19.3 million in December 2014. The project as approved by the GEF and formally agreed between UNDP and the Government of Armenia (GoA) is documented in a Project Document (PD). See also [http://procurement-notices.undp.org/view\\_file.cfm?doc\\_id=98004](http://procurement-notices.undp.org/view_file.cfm?doc_id=98004).

**Reference 2:** On the 13.01.2005 Government of the Republic of Armenia has endorsed the "List of actions implemented within the frames of the "National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants in the Republic of Armenia during 2005-2010". See also: <http://www.pops.int/documents/implementation/nips/submissions/NIPArmenia.pdf>  
Currently the NIP is under the review and being updated.

**Reference 3:** Developed and endorsed over 30 legal acts. In 2004 the law on waste, which determines the state policy in the field of waste management, was passed. The Republic of Armenia approved the list of hazardous waste (government decision – 20.05.2004 No.874-N). List of prohibited hazardous waste (government decision – 8.07.2004 No.1093-N) of the Republic of Armenia – on hazardous waste recycling, disposal, storage, transportation and installation procedures for licensing (government decision 30.01.2003 No.121-N). Classified according to the hazard of the waste (order for the Minister of Environment 25.02.2006 No.430-N). Republic of Armenia – on existing production and consumption waste list (order for the Minister of Environment 26.10.2006 No.342-N).

**Reference 4:** List of banned chemicals and herbicides in Armenia (government decision – 17.03.2005, No.293-N).

## 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)*



#### FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS Terms of Reference for Consultant/PSA

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

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

The EC / FAO project GCP/RER/040/EC looks to develop capacity for management of hazardous wastes through the example of obsolete pesticides and POPs. There is an estimated 200,000 tonnes of these materials known to be affecting the Russian Federation, countries of the Eastern Neighbourhood (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) and the Central Asian Countries [CACs] (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan). Much of the previous work on disposal of waste from these countries has looked to export thousands of tones of pesticide stockpiles to high temperature incinerators operated commercially in EC member states. Whilst this strategy meets all international environmental compliance requirements it is prohibitively expensive. The vast distances involved for transport of waste from CACs to facilities in Europe makes the option of finding a local solution appealing based on risk management and cost considerations. Under the project a study of capacity to treat this material is to be commissioned. The Coordinator for the Disposal Study will for the 12 project countries:

- i. Review of existing policy framework for the management and elimination (including inventory, assessment, and transport) of POPs and obsolete pesticides in line with the requirements of the respective EU Directives/Stockholm Convention;
- ii. Conduct benchmarking of current POPs management (including (temporary) storage and destruction) against international best practice on BAT /BEP as set out by the Basel / Stockholm Convention working groups; highlight and describe best ongoing practices per country
- iii. Review of existing agricultural policy framework on the linkage to fulfillment of environmental obligations such as requirements for the management of contaminated empty containers/packaging
- iv. Review of existing and planned treatment options for POPs pesticides, obsolete pesticides and related hazardous wastes, contaminated empty containers and contaminated land;



- v. Assess potential treatment facilities such as existing modern cement kilns, as well as planned and/or implemented pilot plant investigations, which can develop in the next years to important market players.
- vi. Assess the Russian-Belarus-Kazakhstan customs Union and its implications for hazardous waste in and through Russia, including an assessment of 1) experiences over the last years practical implementation and of 2) alternative transport routes from the republics avoiding Russian territory. To be completed with due reference to the requirements of the Basel Convention.
- vii. Assess access (by road, train or water) to treatment options and economics of transport of waste across the region to treatment facilities/alternative storage facilities;
- viii. Review existing country POPs data (Obsolete Pesticides and PCBs) as far as available, and make efforts to collect, if possible, total hazardous waste stream data as set out in national profiles such as the UNITAR chemicals profile. This will 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.