

**Solid Waste Management in Ukrainian Cities, the Role of Urban Population in the
Separate Collection of Waste, and Recommendations for Bodies of Local Self-
Governance**

*Analytical study within the UNDP
Municipal Governance and Sustainable Development Programme*

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The publication contains a review of legal and regulatory documents of the European Union on matters of waste management; it analyses the state of the household waste management sphere in Ukraine, as well as problems facing the sector; defines the role of associations of co-owners of multi-apartment houses in the system of separate collection of household waste, rules for household waste removal service provision; regulates the procedures for development of city sanitation plans and programmes of household waste management; puts forward possible directions of information campaigns for population, etc.

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Preamble

Ukraine is not the only country in Europe facing problems in the sphere of solid household waste (SHW) management at the local self-government level. Population growth, fast industrial development and market growth in all countries inevitably entail an increase in the amount of household waste. The majority of developed European countries, however, are able to protect their natural environment and quite effectively implement up-to-date technologies for SHW processing and recycling in order to ensure normal vital functions for their inhabitants, protection of the environment and resource conservation. In spite of the undoubtedly positive results gained so far, national and local bodies of power in those countries exert additional efforts to develop competitive markets for service provision and to create a favourable business environment for investors.

While certain European countries plan to fully discontinue the disposal of solid household waste in landfills within five to seven years, the majority of Ukrainian cities continue to use existing landfills very intensively, the specifications of which in many regions do not meet regulatory technical requirements. The lack of necessary funds in budgets at every level, a business climate in Ukraine that is unappealing to investors, political instability, passivity of certain local authorities and populations, as well as discord about land issues at the local level over the last eleven years, forces Ukraine to continue building new landfills, instead of developing and implementing new systems for solid household waste management and capacities for their processing and recycling.

Low innovation and investment activity by economic entities in the sphere of solid household waste management shows itself in slow rates of implementation of separate waste collection, sorting and energy recovery, etc.

Well-thought out promotion and implementation of systems for separate SHW collection in residential areas, the creation and development of technology chains via community-owned or private enterprises will make it possible to decrease the volumes of SHW, which are sent daily to landfills, by 25-30%. This activity requires professional expertise and competent actions by local authorities, as well as the engagement of (through public awareness campaigns and economic incentives) and cooperation with, residents of multi-apartment houses organised into associations of co-owners of multi-apartment houses (ACMAH), and owners of private detached houses. At present, there are 12,386 associations of co-owners of multi-apartment houses active in Ukraine. In accordance with the National Programme for reform and development of housing and utilities sector for the period of 2009 to 2014, by the end of 2014 it is planned to establish 45,530 ACMAHs, which will cover close to 70% of the multi-apartment housing stock.

Four hundred and seventy ACMAHs were established in twenty nine partner cities due to the support provided by the 'Municipal Governance and Sustainable Development Programme', implemented by the United Nations Development Programme in Ukraine. About fifty thousand residents united to feel the advantages of maintaining and servicing their multi-apartment houses with a co-owners' association.

The UNDP Project 'Municipal Governance and Sustainable Development Programme' (UNDP/MGSDP) assists the development of policies, practices and procedures, which, on condition of being implemented by bodies of local self-government, improve living conditions of populations and the quality of housing services and utilities, and ensure citizens' involvement in decision making at local levels and sustainable development of their territorial communities. In order to initiate the process of improvement of certain areas of self-governance, UNDP/MGSDP has provided assistance in the form of training sessions, manuals, information and analytical reports, professional consultations and reports, as well as grants to implement local communities' initiatives in the

development sphere. Reform of the housing and utilities sector is an important task for every residential area.

Therefore there are expectations that professional information and recommendations, to be provided in this analytical report, will be helpful for bodies of local self-government in the course of implementation of reform in the sphere of household waste management at the local level.

This review defines problems in the sphere of SHW management, which are acute for Ukrainian cities, respective recommendations by the European Union Directives, stipulations of the Ukrainian legislation and law initiatives put forward by Ministries responsible for technical regulation of the said sphere, as well as containing recommendations, remarks and certain best practices by individual Ukrainian cities as solutions for the most frequently occurring problems.

Regulatory Documents of the European Union on Waste Management Issues

Reviews of international experience and practices and the European Directives in the sphere of solid household waste management, indicates that European policies on waste list prevention and reduction of waste generation and their harmful effects as a salient objective. This can be achieved by application of clean technologies, the preservation of natural resources, development of environmentally safe products and proper technologies for the final reprocessing of hazardous substances contained in wastes that are intended for recycling.

The main goal is waste recycling through reprocessing, re-utilisation, improvement or any other process generating a secondary raw materials or using waste a source of energy ('energy recovery').

Waste management is regulated by a large number of EU Directives and Regulations.

The EU Framework Directive on waste (the Directive of the European Parliament and Council 2006/12/EU of April 5, 2006, on waste).

The Framework Directive on Waste (FDW) is the EU's main document in the sphere of waste management. It covers all waste flows (with the exception of nuclear waste and some other specific types of waste).

FDW imposes a so-called 'waste hierarchy', rules for waste management planning, their qualified collection and reprocessing, as well demands compliance with the mandatory licensing procedures for reprocessing entities.

A general requirement in the Framework Directive on Waste is the following: prior to the implementation of important measures aimed at waste utilisation and recovery, member countries must additionally limit waste generation, in part, through encouraging environmentally clean technologies and products that can be reprocessed and recycled, with account to existing or potential opportunities in the utilised waste market.

These regulatory acts can be divided into three groups:

- **Acts that regulate waste management operations.** The foundation of this group of documents is laid out by directives that set requirements for activities and permissions on waste removal activities (most frequently – by incineration or disposal). The main legal regulatory documents in this group are the following:

- 1999/31 Directive regarding waste disposal;
- 2000/76 Directive regarding waste incineration.

- **Acts that regulate the management of individual types of waste.** These predominantly are directives that set requirements for hazardous waste management and their individual types, as well as used lubricants, packaging materials, batteries and vehicle batteries. The main legal regulatory documents in this group are the following:

- Directive 91/689 on hazardous waste;
- Directive 94/67 on the incineration of hazardous waste;
- Directive 75/439 on the disposal of waste oil;
- Directive 94/62 on packaging and packaging waste;
- Directive 91/157 on the disposal of waste batteries and vehicle batteries containing certain hazardous substances;
- Directive 78/176 on waste from the titanium dioxide industry;
- Directive 2009/40/EC of the European Parliament and of the Council of Europe of the 6th of May 2009 on roadworthiness tests for motor vehicles and their trailers;
- Directive 2000/59/EC of the European Parliament and of the Council of Europe of the 27th of November 2000 on port reception facilities for ship-generated waste and cargo residues;

- Directive 2002/95 Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment;
- Directive 2002/96 on waste electrical and electronic equipment.
- **Acts that regulate management transportation of waste.** This group of documents is dominated by regulations that set the requirements to transit, export and import of waste within the EU and beyond its borders. The main legal regulatory documents in this group are as follows:
 - European Council Regulation EEC No 259 93 on the Supervision and Control of Shipments of Waste within, into and out of the European Community;
 - Regulation (EC) 1547/1999 regarding shipments of specific types of waste to specific countries;
 - European Council Regulation (EC) No 1420/1999 of the 29th of April 1999 establishing common rules and procedures to apply to shipments to certain non-OECD countries of certain types of waste;
 - Council Directive 84/631/EEC of the 6th of December 1984 on the supervision and control within the European Community of the transfrontier shipment of hazardous waste.

The majority of old EU member states have a professional waste collection system in place that is supported by either the municipal authorities or private companies, authorised by respective authorities to manage waste. As a rule, national legislations monopolise such municipal services for waste collection and for the processing of certain waste fractions, especially when it concerns household wastes.

EU countries envisage a considerable decrease in the percentage of biodegradable waste (compared to volumes in 1995) sent to landfill. In 2010 this was a decrease of 25%. In 2013 a 50% decrease is predicted rising to 67% by 2020. In Sweden, Denmark, Switzerland, Germany, Belgium, Norway, Austria and the Netherlands, the level of reprocessing of solid household waste is 30 to 50%. Other European countries reprocess 15 to 30% of their waste. In the USA, thermal energy produced from solid household waste is the main source of renewable energy (35/6% in the total volume of their generation).

Directive on packaging and packaging waste.

Waste packaging is regulated by the European Parliament and Council 94/62/EC on packaging and packaging waste.

'Packaging waste' is defined as waste from any products manufactured from materials of any nature and used for shaping, protection, convenience in handling, delivery and presentation of goods, from raw materials to ready products, from manufacturers to the end user.

Member countries must:

- ensure a decrease in the volume of packaging waste (for example, by imposing limits on packaging of the Customer goods);
- encourage re-utilisation and recovery / recycling of packaging waste, as well as observe recovery / recycling quotas;
- support systems for re-utilisation of such packaging materials that can be re-used in an environmentally safe manner;
- carry out measures to create systems that ensure a return and/or collection of used packaging by end users, or removal of waste from a certain flow for further channelling according to the most appropriate waste management method, and also re-utilisation or recovery, in part, reprocessing of packaging and/or its collection to ensure fulfilment of the tasks set out in the Directive. These systems must be open for participation by economic entities in respective sectors and competent authorities.

The Directive sets target indicators for the recycling and recovery of packaging waste.

As of today, the Directive requirements have been implemented in national legislations (in the form of laws) of the following EU countries: Austria, Belgium, the UK, Germany, Denmark, Ireland, Spain, Italy, Luxembourg, the Netherlands, Portugal, Finland, France and Sweden. In Greece, a draft law has binding force. Denmark, Finland and the Netherlands have voluntary agreements that complement the state legislative regulations.

Practically full separate collection of all types of waste is undertaken in Germany and Austria only. In other European countries, only a fraction of packaging waste is collected separately. Responsibility for this type of collection is assumed by local authorities in the UK, Greece, Denmark, Ireland, Spain, Italy, Luxembourg, the Netherlands, Portugal, France and Finland. Private companies or municipal enterprises are responsible for this in Austria and Germany, whilst public organisations collect this form of waste in Belgium. Sweden operates a system of collection centres.

In 2007 alone, Germany generated ten billion Euros in revenues from packaging and container collection and recycling.

In practically all European countries, the financing of collection, sorting and re-utilisation of used packaging is carried out by authorised non-for-profit organisations, which arrange respective agreements with industrial producers and the Customers of packaging, local authorities and organisations specialising in the collection and re-utilisation of waste.

The European Parliament and Council Directive on waste electrical and electronic equipment (27th of January 2003).

The Directive on waste electrical and electronic equipment is one of the latest targeted waste Directives.

Electrical and electronic equipment is equipment, which requires an electric current or electromagnetic field in order to operate, as well as any equipment intended for generation, transmission and the gauging of such currents and fields, covered by Annex IA, and designed for use at alternating currents tensions of less than 1000 V, and direct current – less than 1500 V.

Member countries must encourage the development and manufacturing of electrical and electronic equipment with regard for its possible disassembly and recovery, in part, re-utilisation and recycling of the equipment, its components and materials.

Member countries must take all necessary measures to minimise the discarding of used equipment with unsorted municipal waste and to reach high levels of separate collection of such equipment. The Directive obligates member countries to create systems that allow end users and distributors to return the equipment free of charge. The Directive regulates minimal levels for the separate collection of electronic and electrical equipment from households, equating to an average of 4 kg per resident per year.

The Directive also sets target values for recycling and reutilisation, which differ depending on the type of equipment.

Directive on hazardous waste, 91/689/EEC

The Directive 91/689/EEC on hazardous waste determines specific requirements for dangerous waste. This includes highly-toxic, carcinogenic and other waste that is, as a rule produced by industry. It contains criteria for the development of a list of hazardous waste; imposes a ban on mixing different types of waste and requires the planning of hazardous waste management.

The Directive imposes a ban on the mixing of certain types of dangerous waste, and also their mixing with safe waste. The most important aspect of this Directive is that hazardous waste may not be mixed for the purpose of dilution of their dangerous properties, with the aim of altering their waste category. Permission for the mixing of waste may only be issued in exceptional cases,

upon condition that such mixing is environmentally expedient, and especially when it promotes safety in destruction or recovery.

Directive 91/157 on the disposal of waste batteries and vehicle batteries containing certain hazardous substances, with amendments introduced by the December 22nd, 1998, Directive 98/101/EEC.

In part, the Directive is aimed at the prevention, reduction and, as may be possible, elimination of pollution and the ensuring of efficient use of raw-material resources, proceeding from the principles of the 'polluter's material responsibility'. It also regulates vehicle battery management.

The Directive restricts the content of certain heavy metals in batteries, such as mercury, cadmium and lead.

Vehicle batteries must carry a sign depicting a stricken-through waste container, which indicates that those items may not be discarded as ordinary household wastes. The EU members must organise a separate system for battery collection and after enactment of the 1998 amendments the use of mercury-containing batteries.

Not later than the 1st of January 2000, the member countries banned the marketing of batteries and vehicle batteries that contained more than 0.0005% of mercury by weight, in instances when those items are part of an electrical device. Finger-sized batteries with a mercury-content lower than 2% weight, are exempt from the ban.

The Directive envisaged full control over compliance with these regulations.

***The State of the solid household waste management system in Ukraine
and the existing issues in the sector***

The existing practices in solid household waste management do not ensure protection of the population and the natural environment from their hazardous effects. This situation is true for almost all residential areas in Ukraine. This poses a national problem whose resolution is in the interests of the main principles of state policy in the field of waste management. The Law of Ukraine 'On Waste' aims to protect the normal life-sustaining activities of the population which includes the proper sanitation of residential areas, the protection of the environment and the conservation of resources.

Household waste — any waste generated in the course of day to day life and activities of people in residential and non-residential houses (solid, large-size, repair, liquid, excluding waste connected with commercial industrial operations), which are not used at the site of their 'accumulation'.

In residential areas of Ukraine, the problems in the sphere of solid household waste management are connected with the further aggravation of their negative effects on the natural environment and human health. This is caused by deteriorated sanitation of residential areas, the growing number of official refuse tips and landfills for solid household waste disposal and the considerable volume of illegal storage of solid household waste across almost the entire territory of the country.

Specific volumes of solid household waste generation in Ukraine are constantly growing. Over the last decade, their per capita quantities have grown by approximately seventy five per cent to reach an average of 300 to 400 kg per year.

In Ukraine, close to fifty million square meters of household waste was generated in 2010, which is equal to almost eleven million tonnes being disposed at four and a half thousand refuse tips and landfills, occupying a total area of over eight thousand hectares.

The number of overloaded landfills is three hundred and fourteen (7%), and eight hundred and ninety seven refuse tips (20%) do not meet environmental safety norms.

Land classification, soil remediation and landfill sanitation is not carried out in a proper manner. Out of the 2,700 landfills that require classification, only 13% were actually classified; 21% of landfills were remediated, and a mere 16% sanitised.

It is important to note that the number of new landfills needed is almost six hundred and seventy.

In fulfilment of the requirements set by the Law of Ukraine 'On Waste', Programme for solid household waste management, approved by the government, fifty three cities in Ukraine have implemented separate collection of household waste. Waste-grading lines operate in eight cities; the cities of Kyiv, Dnipropetrovsk and Lyubotyn in Kharkiv Oblast operate waste-incineration plants. This has made it possible to reprocess and utilise about 7% of household waste; a percentage of solid household waste was channelled to recyclable material collection points and to waste-recycling plants. Thus, in 2010, sixty seven thousand tons of scrap paper, twenty thousand tons of polymers, and thirteen thousand tonnes of glass were collected at recyclable material collection points.

**Implementation of separate collection of solid household waste
in Ukraine**

(According to the Ministry for regional development, construction and housing and utilities sector of Ukraine)

№ з/п	Name of city	Year of implementation of separate collection of SHW	List of SHW components collected separately
	AR of Crimea		
1	Simferopol	2010	Glass, metals, polymers
2	Yalta	2010	Paper, polymers
	Vinnitsia Oblast		
3	Kalynivka	2009	Paper, polymers, glass
	Dnipropetrovsk Oblast		
4	Vilnogirsk	2009	polymers
5	Dniprodzerzhynsk	2007	polymers
6	Nikopol	2005	polymers, glass
7	Novomoskovsk	2009	Glass
	Donetsk Oblast		
8	Donetsk	2006	polymers, glass
9	Kramatorks	2006-2007	Paper, polymers, glass
10	Sloviansk	2004-2007	Paper, polymers, glass
11	Druzhkivka	2007	Paper, polymers, glass
	Zhytomyr Oblast		
12	Korosten	2008	Glass, paper, metal
	Transcarpathian Oblast		
13	Uzhgorod	2008	Glass, paper, polymers
14	Beregove	2009	
15	Lokhove Village, Mukacheve District	2004	Glass, paper, polymers
16	Velyky Bychkiv, Rakhiv District	2009	Polymers, paper, glass , metal
17	Rakhiv	2008	Polymers, paper, glass , metal
18	Dilove Village, Rakhiv District	2009	Polymers, paper, glass , metal
19	Kostylivka Village, Rakhiv District	2009	Polymers, paper, glass , metal
20	Lug Village, Rakhiv District	2009	Polymers, paper, glass , metal
	Zaporizhyya Oblast		
21	Zaporizhyya	2009	Polymers, paper, glass , metal
	Ivano-Frankivks Oblast		
22	Kalush	2007	Polymers, paper, glass
23	Ivano-Frankivks	2006	Polymers
24	Burshtyn	2008	Polymers, paper
25	Gorodenka	2004	Polymers, paper
26	Dolyna	2008	Paper, glass , polymers
27	Kosiv	2005	Polymers
28	Verkhovynе	2005	Glass, paper, polymers
	Kyiv Oblast		
29	Bila Tserkva	2009	Polymers
30	Knyazhychi Village, Brovary District	2009	Polymers
31	Rozhny Village, Brovary District	2009	polymers

32	Ukrainka	2008	Polymers, glass
33	Bucha	2004	Polymers, metal, glass , paper
	Lviv Oblast		
34	Lviv	2009	Polymers
	Mykolayiv Oblast		
35	Voznesensk	2009	Paper, polymers, glass
	Poltava Oblast		
36	Kremenchuk	2009	Paper, polymers, glass
37	Myrhorog	2006	Paper, polymers, glass
38	Karlivka	2009	Paper, polymers, glass
	Rivne Oblast		
39	Ostrog	2010	Polymers, glass
40	Dubno	2008	Glass, paper
	Ternopil Oblast		
41	Terebovlya	2009	Polymers
42	Chortkiv	2009	Polymers
	Kharkiv Oblast		
43	Kharkiv	2004	Paper, polymers, glass
44	Komsomolske	2008	Paper, polymers
	Khmelnitsky Oblast		
45	Khmelnitsky	2005	Polymers, glass
	Cherkasy Oblast		
46	Cherkasy	2005	polymers
47	Uman	2010	Paper, polymers, glass
48	Smila	2007	Polymers
49	Kaniv	2007	Polymers, glass
50	Vatutine	2009	Polymers
	Chernivtsi Oblast		
51	Chernivtsi	2009	Polymers
52	Kyiv	2007	Paper, polymers
53	Sevastopol	2006	Paper, polymers, glass

Existing waste-grading, waste-processing and waste-incineration stations (plants, complexes) in Ukraine

City	Technology implemented
AR of Crimea	
Saky	Waste-grading complex
Dnipropetrovsk Oblast	
Dnipropetrovsk	Waste-incineration plant
Zaporizhya Oblast	
Zaporizhya	Waste-grading complex
Kyivska Oblast	
Pohreby Village, Vasylkiv District	Waste-processing complex
Bucha	Sorting, processing

Kirovograd Oblast	
Oleksandriya	Waste-grading line
Kharkiv Oblast	
Rogan	Waste-grading line
Lyubotyn	Waste-incineration station
Kyiv	Waste-grading
Kyiv	Waste-incineration
Sevastopol	Waste-grading

However, not all cities and villages have proper household waste management in place, which leads to the emergence of illegal waste dumps. As a rule, up to thirty five thousand such dumps, occupying the total of over 1 thousand hectares, are annually found in the private sector. Practically all illegal dumps found in 2010 were eliminated.

The average tariff for solid household waste management for private individuals is about UAH 31 per cubic metre, including about UAH 9 per cubic metre for disposal.

These tariffs are considerably lower than internationally accepted ones, which prevents enterprises, operating in this field, from adhering to the applicable technical standards and rules in the course of their operation, as well as from implementing new technologies.

In one hundred and eighty cities and villages, household waste removal services were removed from the list of services for maintenance of houses and structures and house land plots. On average, after that service was removed from the list of services for maintenance of houses and structures and house land plots, the level of fee collections grew by 2% (from 86%, when the service was a part of housing rent, to 88%, after it has become a separate service).

In 2010, local budgets allocated about UAH 162 million as subsidies for the financing of development and maintenance of sanitation systems.

Over recent times, the morphologic composition of solid household waste in Ukraine has changed. While earlier food waste was the predominant component in the composition, at present fifty per cent of solid household waste is composed of used packaging, primarily polymeric and combination, with the majority of their types being resistant to biological degradation and able to remain in the ground for many years.

The wide use of electrical and electronic equipment in industry and by households, the fast growth of its import into Ukraine and technological innovations, causes high replacement rates of equipment. As a result, this kind of waste appears in the solid household waste composition ever more often. The list of harmful substances that comes for disposal or incineration within electrical and electronic equipment is very extensive; the most hazardous are heavy metals, halogen-containing substances and asbestos, etc.

An equally serious threat to the environment and human health is posed by specific waste from medical and sanitary facilities, which may get into solid household waste containers and become a source of infection.

In the every-day life the volume of hazardous waste continue to grow: electric cells, car batteries, household chemicals, lacquers, paints, etc. Their storage at refuse tips and landfills, greatly increases the risk of atmospheric pollution, the pollution of water and soil with toxic aliphatic, aromatic and organochlorine substances, heavy metal compounds, etc. This is especially the case in the event of the incineration of solid household waste.

Almost universally absent are effluent mitigation systems, which aggravate the technogenic danger posed by these substances. No measures for biogas recovery and reutilisation are carried

out at landfills, which in part, violates quantitative obligations of developed countries and countries with transit economies, including Ukraine, concerning the limitation and reduction of emissions of greenhouse gases as stipulated by Kyoto Protocol.

Certain landfills are located immediately next to residential areas, water reservoirs, on areas prone to landslides, which violates requirements to sanitary protection zones. The allocation of new land for the construction of new solid household waste landfills is opposed by the public and environmental and public organisations.

The main causes of the problem are as follows:

- insufficient coverage of population with solid household waste removal services;
- insufficient quality of solid household waste removal services;
- lack of modern effective technologies for solid household waste recycling and reutilisation.

The provision of effective and high-quality services in compliance with the requirements in the Law of Ukraine 'On Housing and Utility Services' and other legal regulatory documents and technical regulations in the sphere of solid household waste are carried out at a dissatisfactory level. This is primarily connected with the technical condition of the fixed assets of sanitation enterprises.

The specialised vehicles used for the collection and transportation of solid household waste, which number four thousand, experience extremely high levels of wear. In the majority of villages, obsolete types of containers, which do not meet technological, sanitary, epidemiological and environmental requirements are in use. Waste collection companies receive low revenues which do not cover the real costs for the provision of solid household waste removal services. This makes it impossible for these companies to renew waste collection machinery and implement the latest technology. They are in short, unable to comply with the industry's technological, sanitation and environmental standards and guidelines.

Low levels of innovation and investment activity by business entities in the field of solid household waste management can be seen by the slow rate of implementation of modern technology for the separate collection, sorting, and energy recovery from solid household waste. Market mechanisms for the use of solid household waste for power generation and as a source of recyclable materials are imperfect due to insufficient development rates, the lack of an effective organisational and production infrastructure and an absence of effective economic incentives for the engagement of small and medium businesses, as envisaged in Article 40 of the Law of Ukraine 'On Waste'.

Some of the main reasons for the emergence of the problem are low levels of engagement by the general public in the subject of solid household waste management, and the passive attitudes thereof. Amongst other causes, low levels of environmental education amongst the general public results in low levels of separate collection of solid household waste in Ukraine.

The problems that have developed in the sphere of solid household waste management may be resolved by way of:

- introduction of separate collection and sorting of solid household waste with the purpose of the maximum utilisation (and prevention of irrecoverable loss) of their components in the course of disposal; avoidance of transmission of hazardous household waste into the environment, reduction of land areas needed for solid household waste landfills;
- recognition of landfill as the least effective technology for solid household waste management, and a transition to up-to-date, effective methods of their reutilisation and neutralisation;

- implementation of modern technologies for energy recovery from solid household waste, based on the organisation and production of modern equipment with the use of international experience and domestic technological developments in the creation of a national industry of equipment production for the sphere of solid household waste management;
- improvement of technologies for the burial of solid household waste residues that cannot be recycled or reutilised, (specifically, by implementation of various technologies for the burial of pelletized waste) for the purpose of the maximum possible prevention of their effects on the environment;
- re-cultivation of lands under solid household waste landfills;
- carrying out of permanent activities aimed at raising of environmental awareness amongst the population.

**Specific issues in the sphere of household waste management
in Ukrainian cities**

In accordance with the stipulations of the Law of Ukraine 'On local self-government in Ukraine' (Article 30), decision on matters related to the collection, transportation, reutilisation and neutralisation of household waste is within the remit of executive bodies within village and city councils.

Articles 82 and 152 of the Code of Ukraine 'On administrative offence' envisage penalties for non-compliance with requirements related to waste management or with the state standards, norms and rules in the scope of the creation of the living environment. These fines are set at twenty to eighty times the size of tax-exempt minimal personal income (UAH 340 to 1360) for personal liability, and for officials and private entrepreneurs fifty to one hundred times the size of the tax-exempt minimal personal income (UAH 850 to 1700).

Below is a list of existing legal regulations in the area of household waste management:

Regulation	Document Title
Law of Ukraine	'On waste'
Law of Ukraine, dated 21.01.2010	'On amendments in certain legislative acts of Ukraine in the sphere of waste management'
Resolution by the Cabinet of Ministers of Ukraine, dated 04.03.2004 №265	'On approval of the Programme for solid household waste management'
Resolution by the Cabinet of Ministers of Ukraine, dated 26.07.2006 №1010	'On approval of the Procedures for formation of tariffs on household waste removal services'
Resolution by the Cabinet of Ministers of Ukraine, dated 10.12.2008 №1070	'On approval of Rules for provision of household waste removal services'
Resolution by the Cabinet of Ministers of Ukraine, dated 07.10.2009 №1048	'On approval of criteria to be applied for the assessment of risks from economic operations in the scope of residential areas redevelopment, in the sphere of burial and in the field of household waste removal , and to define periodicity of planned measures for state supervision (control)'
Order by the Ministry of Construction, dated 10.01.2006 №2	'On approval of Recommendations for preparation of local programmes of solid household waste management'
Order by the Ministry of Construction, dated 10.01.2006 №5	'On approval of Recommendations for improvement of active landfills and dumps of solid household waste'
Order by the Ministry of Construction, dated 10.01.2006 №6	'On approval of Recommendations for plans of sanitation of residential areas'
Order by the Ministry of Construction, dated 10.01.2006 № 8	'On approval of Methodology for the development of assessment of environmental effects for objects of the solid household waste management'
Order by the Ministry of Construction, dated 30.11.2006 №396	'On approval of Methodology for implementation of two-stage transportation of solid household waste'
Order by the Ministry of Construction, dated 19.09.2006 №308	'On approval of the reporting form №1-ТПБ and of the Instruction Letter №1- ТПБ Report on solid household waste management'
Order by the Ministry of Construction, dated 01.02.2007 №32	'On approval of the Programme for re-training and qualification upgrading of housing and utilities staffs in the sphere of solid household waste management'

Order by the Ministry of Construction, dated 05.04.2007 №120	'On approval of the Specimen of the sanitary and technical passport of a solid household waste landfill and Methodology recommendations for its completion'
Order by the State Committee for Housing and Utilities, dated 21.10.2008 №311	'On approval of the Standard Provisions of an enterprise in the sphere of solid household waste management'
Order by the State Committee for Housing and Utilities, dated 02.10.2008 №295	'On approval of Methodology Recommendations for implementation of a monitoring system in the sphere of solid household waste management'
Order by the State Committee for Housing and Utilities, dated 05.08.2008 №242	'On approval of Methodology Recommendations for separate collection of solid household waste'
Order by the State Committee for Housing and Utilities, dated 10.08.2009 №243	'On approval of Methodology Recommendations for implementation of the Procedures for formation of tariffs on household waste removal services'
Order by the State Committee for Housing and Utilities, dated 25.03.2009 №75	'On approval of Methodology Recommendations for definition of time quotas for household waste transportation'
Order by the State Committee for Housing and Utilities, dated 16.02.2010 №38	'On approval of Methodology Recommendations for formation of public opinion on environmentally safe household waste management'
Order by the State Committee for Housing and Utilities, dated 16.02.2010 №39	'On approval of Methodology Recommendations for determining of morphological composition of solid household waste'
Order by the State Committee for Housing and Utilities, dated 22.03.2010 №75	'On approval of Recommended quotas for household waste removal services'
Order by the State Committee for Housing and Utilities, dated 30.03.2010 №78	'On approval of COY ЖКГ Technologies for processing of organic matter contained in household waste'
Order by the State Committee for Housing and Utilities, dated 01.06.2010 №170	'On approval of time quotas for work connected with collection and transportation of household waste'
Order by the State Committee for Housing and Utilities, dated 07.06.2010 №176	'On approval of Methodology Recommendations for organisation of collection, transportation, reprocessing and re-utilisation of household waste'
Order by the State Committee for Housing and Utilities, dated 30.07.2010 №259	'On of the Rules for definition of standards in provision of household waste removal services'
Order by the State Committee for Housing and Utilities, dated 01.12.2010 №435	'On approval of rules for operation of household waste landfills'
Order by the State Committee for Housing and Utilities, dated 31.12.2010 №484	'On approval of COY ЖКГ Household waste. Biological gas from household waste used in cogeneration plants'
Order by the State Committee for Housing and Utilities, dated 31.12.2010 №485	'On approval of COY ЖКГ Household waste. Technologies for processing of waste plastic, paper and cardboard contained in the solid household waste'
Order by the State Committee for Housing and Utilities, dated 31.12.2010 №486	'On approval of COY ЖКГ Household waste. Technologies for processing of waste glass contained in the solid household waste'

The Law of Ukraine 'On Waste' sets the following requirements concerning household waste management:

- household waste — any waste generated in the course of day to day life and activities of people in residential and non-residential houses (solid, large-size, repair, liquid, excluding waste connected with commercial industrial operations), which are not used at the site of their 'accumulation';
- sorting of waste — the mechanical division of waste by its physical and chemical properties, technical components and merchandise properties for the purpose of the waste reutilisation or removal;
- separate collection of household waste is carried out by its owners in accordance with the methodology for the separate collection of household waste, as approved by the central body of executive power for housing and utility matters.

One of the directions in state policy is the creation of conditions for the implementation of the separate collection of household waste through implementation of social and economic tools aimed at encouraging the creators of the waste to undertake separate collection.

At the same time, it stipulates requirements for the development and approval of plans for the sanitation of cities and villages within the respective administrative-territorial unit, the organisation of separate collection of household waste, standards for household waste removal services, the determining of which legal entities shall be in charge with regards the collection and transportation of household waste, within the boundaries of a certain area, to carrier vehicles, to designing, construction and operation of thermal processing (incineration) objects and the burial of household waste.

Article 35-1 of the Law of Ukraine 'On Waste' 'Requirements to household waste management':

Household waste management shall be carried out in accordance with state norms, standards and rules.

In the course of the designing of residential houses, public, industrial, storage and other structures, it is proposed to build and equip container areas for the separate collection and storage of household waste, and bins for household waste.

Bulky items and waste from household decoration and repairs must be collected separately from other varieties of household waste.

Hazardous waste shall be collected separately from other types of household waste, and must also be separated at the stage of collection or sorting and transferred to specialised contractors who are licenced for the management of hazardous waste.

Collection and transportation of household waste within the boundaries of a specific territory shall be carried out by a legal entity, duly authorised by a body of local self-government, on a transparent tender basis, by specially equipped carrier vehicles.

Burial of household waste shall be permitted only on specially designed landfill sites.

It shall be prohibited to design, build or operate a household waste landfill site without the installation of systems for ground water protection, and extraction and neutralisation of bio-gas and effluents.

The illegal dumping and the placement of waste (including household waste), in underground spaces, within the territory of cities and other residential areas, on the territory of nature reserves, on lands intended for nature-protection, health-rehabilitation, recreational, historical and cultural purposes, within the boundaries of water protection zones and sanitation areas of water reservoirs, and in other places that can pose a threat to the natural environment and human health, shall be prohibited.

Thermal processing (incineration) of household waste shall only be permissible at premises that are specifically designed for that purpose.

Incineration of household waste shall only be permitted for power-generation purposes, with the aim of the generation of thermal and/or electric energy.

Owners or lessees, users, including tenants in residential houses, lessees of land plots, shall sign agreements with the legal entity that, following the approved procedures, has been agreed as the service provider for household waste removal and shall make payments for such services to ensure the separate collection of household waste.

In accordance with Article 25 of the Law of Ukraine 'On Waste', the competences of the special authorised body of the central executive power for matters of housing and utilities in the sphere of waste management encompass the following matters:

- carrying out of measures aimed at the implementation of state policy in the sphere of household waste management, ensuring the development and implementation of state programmes in the sphere of household waste management, and plans and measures in the sphere of household waste management;
- coordination of activities by local bodies of executive power in the sphere of household waste management;
- regulatory support on matters of household waste management;
- development and approval of state standards, norms and rules in the sphere of household waste management;
- approval of programmes in the sphere of household waste management at the level of a republic (for the Autonomous Republic of Crimea) and an Oblast (including the cities of Kyiv and Sevastopol);
- determining, upon agreement with the specially authorised central body of the executive power for matters of the environment protection and the specially authorised central body of the executive power for in the sphere of ensuring sanitary and epidemiological well-being of populations, of the procedures for development, clearance and approval of plans for sanitation of residential areas;
- approval, upon agreement with the specially authorised central body of the executive power for matters of the environment protection, of the rules for the operation and maintenance of household waste management facilities.

The scope of powers for bodies of local self-government in the sphere of household waste management, are specified by the Laws of Ukraine 'On local self-government in Ukraine', 'On housing and utilities', and 'On waste'. These powers include:

- decision-making in the sphere of hazardous waste management;
- determining, following tender-based procedures, of legal entities to carry out, within the boundaries of a defined area, collection and transportation of household waste by carrier vehicles specially equipped for that purpose;
- defining of territories for placement of waste and issuance of permits for construction or reconstruction of a household waste management facility on the respective territory of a village or a city, in compliance with the procedures stipulated by legislation;
- exercising of control over activities by subjects of entrepreneurial activities in the sphere of waste management;
- exercising of control over compliance, on the part of legal entities and private individuals, with the requirements in the sphere of household and industrial waste management, and consideration of administrative offence cases or their transfer of consideration by other state bodies, in the event of a violation of the legislation on waste;

- management of housing and utilities assets that are owned by the respective territorial communities, ensuring their proper maintenance and effective operation, and the necessary level and quality of services for the population;
- organisation of collection and removal of SHW, establishment of landfills for their burial;
- development and approval of plans for sanitation of residential areas and implementation of household waste separate collection systems;
- approval of local and regional programmes for SHW management and control over their fulfilment;
- approval of consumption quotas and household waste removal service quality rates, and control over their observance;
- taking measures to encourage economic entities that are active in the sphere of SHW management;
- determining of contractors for provision of SHW transportation services, as stipulated by legislation;
- determining, on tender-based principles, of businesses, institutions and organisations, responsible for the maintenance of SHW management sphere facilities;
- setting of tariffs for services of SHW removal services under the legislation;
- elimination of illegal and uncontrolled waste dumps;
- approval of rules for residential areas redevelopment;
- promotion of clarification of legislation on SHW management to the population, creation of the necessary conditions to encourage the population to collect and store some types of SHW as recyclable material;
- provision of the necessary level and quality services of SHW removal for the population;
- establishment of the operation modes by service providers that are convenient for the population, as well as an acceptable quality.

According to the Ministry of regional development, construction and housing and utilities of Ukraine, the following legislative acts are planned to be developed and approved in 2011:

- Construction industry standards 'Enterprises of sorting and processing of solid household waste. Requirements for designing new technology'.
- Changes to the Procedures for the formation of tariffs for household waste removal services, as approved by the June 26th, 2006 Resolution of the Cabinet of Ukraine №1010, which envisaged, in the course of the formation of tariffs for household waste removal services, categories including hazardous waste in the composition of household waste (the goal being to bring them in line with the Law of Ukraine 'On amendments in certain legislative regulations of Ukraine in the sphere of waste management', dated January 21, 2010, №1825-VI); determining of intangible assets for administrative purposes within the composition of direct costs (which is actually financed from profits, however all compensation tools are absent); proposals to define the notion of a business investment programme in the sphere of household waste management.
- Changes in the Rules for the provision of household waste removal services, approved by Resolution of the Cabinet of Ministers of Ukraine, dated December 10th, 2008, №1070, which envisaged, *inter alia*, mandatory tender-based procedures to determine providers of services for household waste removal from a defined area by the respective body of self-government; preparation and approval of residential area sanitation plans ensuring

separate collection of household waste, including separate collection of hazardous household waste.

- State sanitary rules and norms 'Sanitary rules for maintenance of residential areas' under an Order of the Ministry of Health, which envisaged stipulation of requirements to sanitation of territories of inhabited areas, as well as rules for the proper carrying out of cleaning of redevelopment objects and state sanitary and epidemiological control in the sphere of redevelopment of residential areas and waste management.
- Procedures for tender-based biddings for the provision of household waste removal services.
- Methodology for the separate collection of household waste.
- Rules for operation of certain household waste management facilities.
- Construction regulations 'City development documentation system. Composition, contents, procedures of preparation, clearance and approval of a residential area sanitation plan'.
- DSTU State Standards 'Containers for collection of household waste. General engineering requirements'.

***The role of associations of co-owners of multi-apartment buildings
in the system of the separate collection of household waste***

In accordance with the Law of Ukraine 'On associations of co-owners of multi-apartment buildings', an association of co-owners of multi-apartment buildings is a legal entity, established by the owners to promote the use of their own property and management, maintenance and use of indivisible and common property.

As is demonstrated by International, and now also domestic experience in the implementation of a system of separate collection of certain components of solid household waste, the prerequisites for that are as follows:

- conscious participation in separate collection of certain components of solid household waste by population, which is achieved through education and encouragement of people;
- existence of an initiative group of tenants who are able to organise other tenants for the purpose of implementation and proper functioning of a system of separate collection of individual components of solid household waste;
- foundation of educational and awareness-raising work among the population, simultaneously with the placement of containers or other holders for the separate collection of individual components of solid household waste;
- timely collection and transportation of both mixed waste and separate components, collected by the population separately; prevention of overfilling of containers and the emergence of 'mini-dumps' near the containers;
- prevention of loading of one and the same refuse-removal truck with mixed waste and separately collected components of solid household waste;
- continuation of work for the implementation of separate collection, even in the event of negative results gained at the initial stages; searching for ways to improve the situation;
- existence of businesses for the processing of separate components of solid household waste or enterprises using technologies that envisage the use of recyclable materials;
- equal, and more effectively — higher prices for recyclable materials at businesses for the reprocessing of certain components of solid household waste or at businesses using technologies that envisages use of the respective recyclable materials, in comparison to its collection and transportation (logistics).

As of today, the experiences gained by the existing ACMAH in Ukraine demonstrate that owners of multi-apartment buildings, who have established an ACMAH, differ from tenants of multi-apartment blocks who have not. They are more likely to make independent decisions, are able to act on their own and exist within a determined and active initiative group, headed, as a rule, by a proactive and responsible person. They have constant control over the performance of their work. They observe time limits, the quality of materials and services, transparent decision making procedures, the holding of tenders and the acceptance of completed work supported on the part of local authorities. In view of the above, it is possible to say that tenants of multi-apartment buildings, where ACMAHs have been established, are best prepared for the implementation and effective operation of a system of separate collection of certain components of solid household waste in a multi-apartment residential development.

The role of associations of co-owners of multi-apartment buildings is to gain the participation of the best prepared section of the population in city-wide programmes for the

implementation of separate parts of certain components of solid household waste management in the residential development of the city. This must be organised by bodies of local self-government and upon the condition of fulfilment by those bodies of local self-government with the engagement of private businesses that are involved in the collection and storage of recyclable materials, of the above-mentioned prerequisites for implementation and functioning of the separate collection of household waste.

Rules for provision of household waste removal services

Rules for provision of household waste removal services were approved by Resolution of the Cabinet of Ministers of Ukraine №1070, dated October 10th, 2008. They define tools for the provision of services for household waste removal in cities and villages (hereinafter referred to as 'the services') by economic entities, regardless of their form of ownership.

Owners or companies responsible for housing assets and land plots must sign agreements with the entity, appointed to be the household waste removal service provider, and ensure the separate collection of household waste.

Agreements for service provision shall be agreed in accordance with the Standard agreement attached here as Annex 1.

The service provider is appointed within the boundaries of a specified area, on a competitive basis. Household waste is to be collected and transported by specially equipped carrier vehicles.

The services will be provided with account for the size of the specified area, the sanitation plan approved in compliance with existing procedures, and other terms and conditions stipulated by legislation in the housing and utilities sphere.

Services for the removal of waste as recyclable material, contained within the composition of household waste, shall be provided with account to the requirements stipulated in Articles 35 and 35¹ of the Law of Ukraine 'On Waste'.

The scope of service provision shall be calculated on the basis of quotas approved by a body of local self-government.

Service provision standards are defined on the basis of rules set by the central body of the state executive power for matters of housing and utilities.

The said standards are subject to revision once every five years.

A minimum daily rate of removal services per one person, in relation to large-size waste, is 0.08 kg (0.4 l); for decoration & repair waste, per one person — 0.11 kg (0.15 l) ; for liquid waste per one person — 25 l, for hazardous waste per one person — 0,01 kg (0,05 l).

The criterion of service quality is observance of the following:

- schedule for household waste removal (with the exception of force majeure or exceptional circumstances), as approved by the body of local self-government;
- requirements of standards, regulations, procedures and the present Rules.

Service quality shall be controlled through assessment of compliance with the standards, regulations, norms, procedures and these Rules, by a commission created upon the initiative by, or with participation of a body of local self-government and/or a body of self-organisation of population and members of boards of associations of co-owners of multi-apartment buildings, housing cooperative or a youth housing complex.

In the course of the conclusion of an agreement for service provision, the parties shall:

- coordinate the schedule for service provision, proceeding from the Customers' demand, standards of provision and quality of services
- upon request by the Customer, the service provider shall be obligated to produce the following: the rules for service provision; the schedule for waste removal; tariffs for service provision; information on any privileges granted by legislative acts to certain groups of population.

In case of the provision of a 'one-off' service, the order shall be made based of the parties' mutual agreement, in accordance with a format prepared by the provider.

Payment documents shall contain graphs to indicate the data regarding:

- volume of household waste (separately for solid, large-sized, repair, liquid waste; in the event of separate collection of solid waste — separately for each type of household waste as recyclable material);
- tariffs for service provision;
- amount payable.

In the event of changes in the price of a service, its provider shall notify the Customer about the fact, not later than 30 days prior to the change, with specification of the reasons and respective substantiations.

In the event of any privileges being granted to certain groups of citizens by legislative acts, payments for services shall be made on the basis on the basis of documents, confirming the fact and the size of the privilege, submitted to the provider.

The service providers shall be responsible under the applicable legislation for deviation from the service provision schedule and other terms and conditions of the agreement.

Owners of household waste that concluded agreements for placement of waste with utility enterprises, and owners of waste that obtained licenses for collection and storage of certain types of waste as recyclable materials, shall be exempt from obtaining quotas for generation and placement of waste, in accordance with clause 8 of the Resolution of the Cabinet of Ministers of Ukraine №1218, dated August 03rd, 1998 'On approval of the procedures for development approval and revision of quotas for waste generation and placement'.

It is necessary to remember that the Rules for household waste removal service provision define liquid waste as household waste generated in a house without a centralised water supply and sewerage, which is kept in septic tanks.

Procedures for formation of tariffs for household waste removal services

In the sphere of household waste management, powers related to regulation (setting) of tariffs under Articles 14 and 31 of the Law of Ukraine 'On housing and utility services' are vested in bodies of local self-government.

Service providers calculate economically substantiated costs for household waste removal service provision and submit those for approval to bodies of local self-government, following the procedures approved by the legislation.

The procedures for formation of tariffs for household waste removal services was approved by Resolution of the Cabinet of Ministers of Ukraine №1010, dated July 26th, 2006.

Bodies of local self-government approve tariffs for household waste removal services at the level of economically substantiated costs for their provision. In the event of tariffs for household waste removal services at a level lower than the economically substantiated costs for their provision, bodies of local self-government shall be obligated to compensate, from the local budget, the difference between the approved tariff size and the economically substantiated costs for their provision.

In accordance with Article 13 of the Law of Ukraine 'On housing and utility services', a service for household waste removal may be provided as a separate communal service or be within services for maintenance of houses and structures, and the house areas.

At the same time, taking into account the fact that the issue of housing and utilities tariff setting always evokes social and political repercussions, the fact of household waste removal services within the services for maintenance of houses and structures, and the house areas, inhibits their approximation to the level of economically substantiated costs for their provision. For example, if prices for fuel, which is used for transportation of household waste, increases, bodies of local self-government are to review both the tariff for household waste removal services, and also the tariffs for maintenance of houses and structures, and the house areas.

In that connection, the State Committee for Housing and Utilities envisaged by its Order №60, dated April 25th, 2005, that in the course of approval of the Procedures for appointment of contractors for provision of housing and utility services in the housing sector, Article 3.4 envisaged that, in cases where a body of local self-government takes a decision on removal of works connected with transportation of household waste from the composition of services for maintenance of houses and structures, and the house areas, the contractor for such services shall be appointed by a respective border of local self-government or its executive body. The decision about appointment of a contractor for household waste removal services, within three work days upon the date of its approval, must be made known to the providers of services for management of houses, structures or a group of houses, for conclusion of respective agreements with providers of such services.

Therefore, the present Procedures grant the bodies of local self-government the right to independently make decisions on withdrawal of household waste removal services from payments for maintenance of houses and structures, and the house areas (apartment rent) in the housing stock, into a separate utility service.

In accordance with Article 27 of the Law of Ukraine 'On housing and utility services' and Article 34-1 of the Law of Ukraine 'On Waste', a body of local self-government may select, on a competitive basis, a contractor to provide services for household waste removal from a certain area, in compliance with the requirements in that Article and Articles 28 and 29 of the said Law, upon condition of inclusion of that service to the list of housing and utility services, the right to provide which is to be contest-based. This removes disputable issues, when three refuse collection

trucks can enter one and the same yard — one providing services for the housing stock, another – a store, the third – a cafe, all of them increasing both noise and air pollution.

Article 1 in the Procedures for formation of household waste removal services, approved by the Resolution of the Cabinet of Ministers of Ukraine, stipulates that SHW removal services encompass services for household waste management (collection, storage, transportation, processing, reutilisation, neutralisation and burial), which are to be carried out within a residential area in accordance with the rules for redevelopment, approved by the body of local self-government.

Accounting of the said household waste management operation within the composition of services ensures compliance with the requirements of the Law of Ukraine 'On Waste'.

In accordance with Article 8 of the present Procedures, tariffs for the services are set individually for each household waste management operation and by the type of household waste (solid, large-size, renovation, liquid).

The units for calculation of household waste removal services in the course of the tariff approval are 1 cubic metre or 1 tonne (in presence of weighing equipment) of household waste.

Planning of costs for their introduction to the full planned working costs of services by each household waste management operation shall be done with account to expenses in connection of operations, financial expenses connected with the core activity.

The list and composition of cost items for provision of services shall be determined by the enterprise depending on the types of household waste management operation and specific features of the technology process.

Administrative costs shall be included in the tariff in the amount not to exceed fifteen per cent of the planned work costs. Rates of administrative costs growth may not exceed the defined inflation rate.

The cost of sales are included in the tariff, the amount may not exceed five per cent of the planned work costs.

The profitability rate is formulated with regards to the necessity of paying corporate income tax and to channel a part of the profit generated to technical upgrading of the enterprises. This should not exceed the business average of twelve per cent, and for such groups as budget-financed institutions and other customers it should not exceed fifteen and fifty per cent, respectively.

Tariffs for services shall include costs to create reserve capital to be channelled into capital investment. The size of this investment shall be determined by taking into account the cost to renew and replace both fixed and intangible assets that are subject to depreciation.

Costs for capital expenditures, creation of special investment funds, ensuring profitability of invested capital, shall be included in the tariffs for the first five years (the amount must not exceed twenty per cent of the total volume of expenditures). This is in accordance with a business investment programme (for an enterprise in the household waste management sector) in the respective residential area, approved by the local bodies of self-government, in accordance with established procedures. In the course of tariff setting, the enterprise shall define sources of financing of capital investments and the cost of depreciation and a profit forecast.

Any investment programme for a business in the field of household waste management must include: the carrying out of measures connected with the improvement of technologies, refurbishment of facilities, automation and dispatching control, resource conservation, improvement of environmental safety and reliability of system operation, and the necessary funds (with allocation of the part that is to be financed from the budget).

The said programme must include a feasibility analysis or a business plan that attest to the effectiveness of envisaged investments and defines sources of investment resources and sets time limits for project implementation.

In order to encourage a reduction of costs per unit of material, fuel, energy and staffing budget, funds that were received as a result of power conservation measures (during the course of a year of the tariff being in effect), which envisage expenditures for capital investments, shall be used by the enterprise for the maintenance of assets and the motivation of personnel in the form of a 'bonus'.

Tariffs for services shall include expenses for repairs, refurbishment and other renovation of fixed assets within the time limits, set by the legislation.

The Tariff shall be increased by the amount of value added tax.

Tariffs shall be designed for three specific groups of Customers: the general public, budget-financed institutions and other Customers. The Customer groups shall be defined on the basis of assessment of the economic substantiation of cost distribution among the Customer groups.

Tariffs that are set at the level of full cost of services shall be fixed for one year.

Tariffs that include costs for capital expenditure shall be fixed for a time period envisaged for implementation of an enterprise development programme.

The adjustment of tariffs over the period of their validity shall be undertaken by adjustment of individual component expenditures that affected a price increase or reduction. This will ensure their economic substantiation and transparency in the implementation of the described mechanism.

Conclusions as to the calculation of economically substantiated planned expenses, connected with provision of household waste removal services, shall be made by the State Inspectorate for Pricing, or its territorial bodies, following the procedures established by the Ministry of Economy.

Development of city sanitation plans and household waste management programmes

City sanitation plans

City sanitation plans are developed as a part of the city development documentation set, or as a separate document, and approved by a body of local self-government or by local state administrations in accordance with the Law of Ukraine 'On Waste'.

The main purpose of the Plan is to define:

- the priority line of measures for sanitation of a residential area;
- the scope of works for sanitation of a residential area;
- systems and methods of household waste management;
- the necessary numbers of specially equipped carrier vehicles to collect and transport household waste; machinery, tools, installations and auxiliary equipment to carry out works for the cleaning of a residential area;
- expediency of designing, construction, refurbishment or expansion of sanitation system facilities, their main parameters and locations;
- the scope of financing envisaged by the Plan.

Plans are developed for a base period of no more than twenty five years, with separation of priority (five years) and long-term measures.

Plans are developed with observance of the legislation of Ukraine on the basis of input data, which a customer provides prior to the commencement of work.

Solid household waste management programme

Solid household waste management programmes are developed and approved by the body of local self-government or the local state administration in accordance with the Law of Ukraine 'On Waste'. They are developed for specific regions or individual cities or villages. They must contain the following sections:

- preamble;
- general description of the region and an analysis of the existing condition the SHW management;
- substantiation of directions for development of the SHW management sphere and main measures under the Programme;
- generalised data and indicators of the Programme, and control and reporting on its fulfilment;
- conclusions.

The contents of a Programme for solid household waste management may consist of the following sections and subsections:

1. Preamble

The preamble specifies the reasons and sources for preparation of the local Programme for solid household waste management. It provides a brief analysis of the condition of SHW management in the said region (the territory in question) and highlights the most salient issues in that sphere. It demonstrates ways in which the defined problems can be resolved, accepted by the Programme, as well as directions in the development of the SHW management field. It formulates the goals and objectives that must be resolved in the course of the Programme implementation. Procedures for the Programme development and implementation are formulated.

2. General description of the region and an analysis of the existing condition of the SHW management sector.

This section provides the necessary data and indicators concerning the region's characteristics that are directly connected to and influence household waste management; it

systemises and analyses this data and makes conclusions reflecting the specifics of the local conditions and provides recommendations as regards taking those into account in the course of Programme development.

It analyses the existing system of sanitation and cleaning, as well as the condition of household waste management; structures and forms output data to substantiate measures under the Programme and directions for development of equipment and technologies in that sphere.

3. Substantiation of directions of development of the SHW management sphere and main measures under the Programme.

The section analyses advantages and shortcomings of certain specific directions in the development of equipment and technologies, and compares those with present-day requirements. Necessary calculations substantiate the main directions in the SHW management field in that region, and tasks and measures in the course of collection, processing and removal of SHW: organisational and administrative, financial and economic, technological, engineering and educational.

The main directions in the development of the SHW management sphere by local programmes being developed must be the following: development of the infrastructure of refuse tips and their reconditioning into landfills, and a reduction of waste burial volumes on these; implementation of tools for current mechanisation tools and renovation of refuse collection truck fleets and container stocks; introduction of innovative, effective, environmentally safe and resource-conserving technologies, derived from a comprehensive combination of various methods of SHW processing on the basis of organisation of separate collection of certain SHW components with their further sorting on special technology lines. This includes the composting of organic matters and storage (placement) of mineral residue which is inert to the natural environment and not subject to reutilisation, on special landfills.

Organic components can also be processed by methods such as pyrolytic decomposition, attenuation and biodynamic fermenting. In the course of sorting, the flammable element can be extracted from the waste, with its further incineration to produce and use heat. The selected recyclable components are to be processed into merchantable raw materials, construction materials and the consumer goods.

For measures requiring considerable material and financial spending (for example, the construction and refurbishment of landfills and dumps; the creation of waste recycling plants; the construction of waste-incineration plants, pyrolysis installations, industrial composting installations, land plots for in-field composting, etc.), feasibility studies (FS), preliminary environmental, sanitary and hygienic assessments will be developed.

In the course of the planning of the Programme measures, respective mechanisms and procedures of their implementation will be envisaged, and the scope and sources of financing will be determined.

4. Generalised data and indicators of the Programme, control and reporting on fulfilment.

This section contains generalised data on planned events and indicators of the local programme for solid household waste management, as well as the expected results and projected outcomes. It also provides information on the proposed systems for control and reporting on the implementation progress of the local Programme for solid household waste management, control over expenditures for targeted financing of the Programme measures and effective use of those funds, methods and methodologies of assessment of the Programme effectiveness, as well as the expected results and possible outcomes.

5. Conclusion.

The section contains information on the main results of the work conducted in the course of development of the local Programme for solid household waste management and the generalised conclusions about the results of developments in relation to individual directions in the scope of effect of the Programme, in part, concerning reform and development of a system of sanitation and cleaning of cities and villages in a specific region, its scientific and engineering progress, improvement of the SHW management sphere, improvement of environmental and sanitary condition of territories. Further actions aimed at the approval and implementation of local Programmes for solid household waste management are defined.

6. Annexes

Summary table of the Programme measures.

Summary table of volumes and sources of financing by the districts and cities of the Oblast (Republic) significance.

Measures for infrastructure arrangement, technical re-equipment, refurbishment, re-cultivation, construction of landfills for burial of SHW.

Measures for renovation of refuse-collection truck fleets and container stocks.

Measures to establish a network of recyclable material collection points.

Measures to create a network of waste-reloading stations with sorting equipment; waste-recycling businesses, sites for the composting of organic components of SHW.

Measures of regulatory and instruction support, and promotional, information, educational and organisational measures.

Measures to implement technologies of the separate collection of SHW.

Programme implementation monitoring and evaluation of its effectiveness.

In order to implement the local Programme for solid household waste management, the local state administration must form a working group, which selects its Chairperson who simultaneously is Head of the Programme.

Implementation of the Programme measures is carried out in accordance with time limits, tools and scopes of financing planned in the Programme.

In the event of non-fulfilment of the Programme measure within the specified time limits due to lack of financing or for any other unpredicted reasons, amendments will be made in the Programme, in accordance with established procedures.

Municipal programmes, models and methods for creation of city-wide systems, public utility companies and/or private business in the system of separate collection, transportation and further processing of PET containers and paper

The complexity of organisational measures to manage the flow of solid household waste consists of the following components:

1. Development of an optimal schedule for the separate collection and transportation of solid household waste, depending on the local conditions.

Practical experience in reprocessing of solid household waste shows that there is no 'silver bullet' that meets all present-day requirements for both economic and conservational requirements. The method of solid household waste processing chosen for each specific region, city or village is selected based upon local conditions:

- composition and properties of the solid household waste, seasonal changes;
- annual volumes of solid household waste generation;
- climatic conditions;
- a demand for organic fertilisers, power resources and recyclable materials;
- economic factors.

The action plan regarding solid household waste management is based on the studying of waste flows and the assessment of available options. The plan includes the implementation of small 'experimental' projects, applying financial tools such as business plans that will make it possible to collect information and gain experience.

2. Organisation of separate collection of certain components of solid household waste by the container plan, and also (as an alternative) centres for collection and primary processing of household waste.

In order to ensure the operation of such a centre, it will be necessary to continually inform local residents about its availability and clearly explain its rules of use: what is to be put in which container and in what form. Since the effectiveness of operation primarily depends upon the degree of activity carried out by the general public, it is important to correctly choose its location, because the lower the effort are required from the population, the higher the degree of activity. It is convenient when such a centre is located, for example, near a large shopping centre, where people come to shop at least once a week. Even in cases of low activity by the general public, such a centre would be able to play a certain educational role, attracting attention to the problem of waste.

3. Economic encouragement of the entire system of collection, reprocessing and re-utilisation of recyclable materials:

- setting of rates for the transportation of waste to collection points, depending on the amount of waste, its type, degree of contamination with mechanical inclusions and remnants of packaging materials;
- development of a material incentives system to encourage the general public to collect recyclable materials;
- creation of conditions for the proper operation of organisations in charge of operation of the housing stock, in part, material interest of their staff in the separate collection of solid household waste.

Proceeding from market prices on recyclable materials, calculations have been made, which demonstrate that Ukraine, by using waste-processing complexes containing waste-sorting lines and lines for thermal processing of solid household waste, can gain the following economic benefit from sales of recyclable materials: from paper and cardboard — UAH 180 million, metals — UAH 225

million, scrap glass— UAH 40 million, polymers — UAH 740 million, textiles — UAH 80 million, and the generation of thermal and/or electric power for residential blocks and waste-processing complexes to the amount of UAH 35 million. The total economic benefit derived from the processing of secondary raw materials could reach UAH 1,300 million.

Information Campaigns/ Motivational Principles

Anywhere in the world, any plan for the primary sorting, collection, transportation and processing of waste requires mandatory information support. The types of support can vary.

- Information booklets and other printed matter, disseminated among households, offices, institutions and other waste-generating entities. These materials contain detailed instructions on waste sorting, data on containers for their collection, on methods and time for removal; addresses of collection points for hazardous and large-size waste; give recommendations for organic waste composting; indicate contact information of respective inquiry services and governmental institutions.

- Specialised information services. Those services may be organised by regional or municipal authorities, as well as by specialised public organisations. They operate as either telephone information lines (the so-called 'green telephones'), or as information centres; they also conduct telephone and personal consultations on any matters related to waste management. The information centres work with the general public, organise lectures and practical classes for school children and younger learners in kindergartens; they can organise training sessions for businesses enterprises, companies and organisations. Sometimes these centres are established by municipalities at landfills and/or enterprises engaged in the processing and re-utilisation of waste. In a number of cases they can also conduct coordination and transportation of waste within their municipality or district.

An educational and information campaign must include four components:

- campaigns utilising the mass media;
- campaigns to raise population awareness;
- campaigns at educational facilities;
- a manual for SHW management.

UNDP/MGSDP experts may be engaged in the planning and preparation of information materials.

This kind of information support is financed by various state and municipal programmes, tax collected from private individuals and legal entities, international programmes and from fees that the information centres collect for the provision of certain paid services.

Monitoring Methods

Household waste management monitoring in the cities and villages of Ukraine must be carried out at a national, regional and local level.

At the national level, monitoring methods include the following:

- analysis of the results of implementation of the State Programme for household waste management, setting and revision of goals and objectives of the state in the field of household waste management, as well as the development of draft legislation and regulatory requirements;
- analysis and determining of the priority ranking of projects in the sphere of solid household waste management, which can be financed from the state budget;
- studying opportunities to make amendments in Ukrainian legislation concerning the creation of economic, legal and social conditions for the implementation of the separate collection of solid household waste;
- monitoring the consistency of Ukrainian legislation in the area of household waste management with respect to European legislation.

At the regional level, monitoring methods include the following:

- definition of opportunities for cooperation between regions in the sphere of solid household waste management, to include the creation of inter-regional household waste management facilities, in part, enterprises for the sorting and processing of individual components of solid household waste;
- studying of the effects produced by household waste on the natural environment, especially that of solid household in waste landfills, located on land territories of Oblasts and Oblast centres that receive household waste.

At the local level, monitoring methods include the following:

- determining of household waste generation volumes (solid, large-size, decoration/renovation, liquid);
- determining the morphological composition of solid household waste and assessing and determining organisational measures to implement the separate collection of individual components of solid household waste;
- studying of household waste volumes generated in a city or village, which can be processed or re-utilised; determining the degree of reduction in volume of household waste transported for burial, and respective adjustment of time limits for the operation of solid household waste landfills;
- determining the volumes of financing from the local budget for the implementation of separate collection and other technologies for processing and re-utilisation of household waste;
- analysis of ways and incentives for the engagement of private businesses (domestic and foreign) to implement the separate collection of individual components of solid household waste, in part, for the acquisition of containers, designing, construction and operation of businesses reprocessing secondary raw materials derived from solid household waste.

***The engagement of local and foreign investment in business.
Public-private partnership in the sphere of household waste management***

Local and foreign investment to implement the effective operation of systems for the separate collection of individual components of solid household waste may be leveraged by the following directions:

- the creation of private enterprises to provide household waste removal services;
- the creation of enterprises engaged in activities for the collection and storage of secondary raw materials;
- the creation of enterprises engaged in the sorting and processing of solid household waste and its individual components.

In order to attract local and foreign investment to implement the effective operation of systems of separate collection of individual components of solid household waste, the household waste management systems must be transparent. Contractual and financial aspects must be clearly defined.

In this respect, effective controls on the part of bodies of local self-government as to those enterprises' compliance with environmental protection legislation and sanitary norms and rules, proper maintenance and technological servicing of operated equipment and the ensuring of the quality of household waste removal services, is necessary.

Bodies of local self-government, engaging private business in the implementation of separate collection of individual components of solid household waste, must clearly formulate their requirements to the bidders, namely:

- private enterprises, at their own expense, must install containers for the collection of individual components of solid household waste on the territory of a village or city; the placement of containers must be agreed upon with the respective organisations that operate the housing stock in that residential area, as well as with enterprises of the non-production sphere that are objects of household waste generation. Proposed container placement locations must meet the requirements of the sanitary standards and rules;
- private enterprise must possess specially equipped carrier vehicles to transport both the mixed household waste and its individual components;
- private enterprises must ensure that the designing, construction and operation of enterprises engaged in the collection and storage of secondary raw materials, as well as enterprises for the sorting and processing of solid household waste and their individual components, observe the requirements of both state and sector construction regulations, and sanitary and environmental protection legislation.

In order to close agreements with private businesses for household waste removal services, bodies of local self-government must engage qualified specialists in the drafting and discussion of the agreement, as well as in the further management and monitoring of activities set out in the service contract. It is also necessary to develop procedures for action in cases of a potential violation of contractual terms and conditions by the contacted private enterprise. In the training of such specialists, effective assistance can be provided by UNDP/MGSDP experts.

Cooperation between UNDP/MGSDP and bodies of local self-government is possible in the following form:

- the development and addition of any amendments to the: 'Requirements of enterprises providing household waste removal services in a residential area where an ACMAH is established and the separate collection of individual components of solid household waste is implemented'. To the documentation on the holding of tender-based bidding to provide

household waste removal services for a specific territory which contains households that have established an ACMAH, and where the separate collection of individual components of solid household waste is being implemented;

- the studying of morphological components of solid household waste by volume and weight, and the development of recommendations concerning the approval of standards for the provision of services for mixed household waste removal, as well as their individual components as secondary raw material;
- the development of materials to conduct work aimed at the formation of public opinion regarding environmentally safe waste management;
- the conducting of educational and explanatory work concerning the procedures of separate collection of individual components of solid household waste with household waste removal service providers, as well with other staff of the housing and utilities industry who are engaged in operations in the field of redevelopment and household waste management in cities, in part, in multi-apartment houses where ACMAHs were created.

Denmark, Sweden, Belgium, the Netherlands, Germany and Austria are the leading European countries when it comes to resolving the problem of solid household waste. This includes the interrelated environmental, economic and technological problems. In these countries less than 20% of solid household waste is sent to landfill. Between 45 and 60% is reprocessed as secondary raw materials or is used for composting. In the majority of European countries 25 to 35% of solid household waste is incinerated.

Thus, the European Union operates over three hundred and fifty waste-incineration enterprises. Over the last decade, Germany alone has built new waste-incineration plants that handle five million tonnes per year. The total capacity of German waste-incineration plants is now twenty million tonnes per year.

In the Netherlands, the share of household waste being processed at waste-incineration plants reaches 41%, in France — 45%, in Belgium — 47%, in Sweden — 56%, in Japan — 74%, in Switzerland — 80%.

At the same time, the implementation of waste-incineration technologies requires a comprehensive approach to household waste management: simultaneous implementation of the separate collection of household waste, waste sorting and waste incineration, with observance of sanitary and environmental requirements.

A considerable interest in the sphere of household waste management in Ukraine is seen from private capital and investors. The most burning issues are the separate collection of resource-rich components of SHW, waste sorting and waste processing and the extraction and utilisation of biogas. Capital investments in the resolution of the solid household waste problem must be focused on the creation of the most progressive models of waste management.

GREENCO, a company that uses the latest innovative technologies in the sphere of household waste management, operates in the Ukrainian cities of Kyiv, Dnipropetrovsk, Donetsk, Sumy, Cherkasy and Zhytomyr.

Since 2006, AVE, an Austrian household waste management company, has been operating in the Ivano-Frankivsk Oblast, in the city of Kolomyia, in the cities of Mukacheve and Lviv, and in the Lviv Oblast.

The German company REMONDIS operates in seven Ukrainian cities including Kyiv, Cherkasy, Melitopol and Zaporizhya. It provides services for 1.5 million residents. It annually collects and processes 500 thousand tonnes of household waste. In Zaporizhya, the company has built a sorting station with a monthly capacity of four thousand tonnes of solid household waste, which reduces the volume of burial of household waste by an impressive 30%.

The French company VEOLIA, provides services for household waste management in four Ukrainian cities, Kyiv, Ternopil, Chernivtsi and Yalta.

In 2004, as a result of cooperation between the 'Danish environmental assistance to Eastern Europe' (DANCEE) organisation, the Ministry of the Environment of Denmark and the State Committee for Housing and Utilities, a National Strategy for solid household waste management in Ukraine was developed and approved.

Over the six years that have passed since that time, certain changes have occurred in Ukraine, *inter alia*, those related to the improvement of legislation in the sphere of household waste management, aimed at the creation of conditions for a reduction of household waste generation, appointment to the Ministry for Matters of Housing and Utilities the specially authorised central body of the state executive power in the sphere of household waste management, definition of requirements to household waste management. The Law 'On housing and utility services' was adopted, which defines the Customers, Producers and Service Providers, in part, in relation to household waste removal, their rights and responsibilities and interrelation procedures.

Now is the time for a profound re-thinking of the provisions of the 2004 National programme for household waste management in Ukraine, in the light of changes in 2004 that have occurred, and for the development of new goals and plans in that sphere, with reference to the state policy orientation to create conditions for the development in Ukraine of a valid self-government through decentralisation of public administration within the context of principles of the European Charter of Local Self-Government. This is the goal of the activities of the Municipal Governance and Sustainable Development Programme, implemented by the UN Development Programme in Ukraine. The experience that the Programme gained in assistance to inclusive governance aimed at the improvement of the quality of life for the populations of twenty nine Ukrainian cities, testifies to the readiness of the Programme for household waste management to provide support on a national and municipal level, and to be engaged, along with the Ministry of Regional Development, Construction and Housing and Utilities and other interested parties, in the development of a revised strategy for household waste management in Ukrainian cities and villages.

With regards to the limited scope of the state budget, the Ministry of Regional Development, Construction and Housing and Utilities, works on the creation of conditions for development in the sphere of public-private partnership, expansion of Ukraine's international connections and attraction of additional investment resources to the sector. Businesses in this sector cooperate with the World Bank, European Bank for Reconstruction and Development, European Investment Bank, KfW bank and with programmes and projects of the European Union.

In 2009, within the framework of an Agreement between the governments of Ukraine and Germany on consulting and technical cooperation, with the assistance of the Ministry of Housing and Utilities, the Kremenchuk City Council and the KfW bank of Germany signed a financial agreement to implement the 'Re-utilisation of solid household waste in the city of Kremenchuk'. This envisaged the sanitation of the existing landfill with the installation of six wells to collect landfill gas, in accordance with the Kyoto Protocol tools.

In September 2010, in the Transcarpathian Oblast, an EU project for household waste management, aimed at waste management improvement in East-European countries within the existing programme of the European Neighbourhood and Partnership Tool (ENPT) was initiated. The 'Re-utilisation of waste — ENPT East' project is primarily aimed at giving assistance to partner countries in their efforts focussed at a reduction of risks connected with the unwise use of waste that poses pollution threats for the environment, society and natural resources.

The Swiss Cooperation Bureau assists in financing of the Swiss-Ukrainian project 'Support to decentralisation' (DESPRO). The project started in 2007 and will end in 2012. The project is aimed at enabling communities to improve living standards of their members through the mobilisation of human and material resources of the community itself, and the attraction of external resources.

During its first three-year stage, the DESPRO project worked at local, regional and national levels for the implementation of the following tasks:

1. Development of decentralised models in the provision of public services, in part, improvement of public utilities (water supply) and social services through a greater degree of involvement of local communities and citizens' associations.
2. Assistance to integration of a model for decentralised service provision in the system of local authorities.
3. Taking into account experience and best practices gained in the pilot regions in the course of preparation of the national action plan as regards decentralisation.

The target regions selected for implementation of project tasks were the Autonomous Republic of Crimea (Bakhchisaraysky, Nyzhniogirsky and Leninsky Districts, and cities of Ostanine, Gornostayivka, Begerove, Bryanske, Viline, Sevastyanika, Pryrichne, Dvuricchia, Pshenychne, Sadove and Burevisnyk) and Vinnytsia Oblast (Tulchynsky, Kalynivsky, Illinetsky Districts and cities of Ivaniv, Cherepashyntsi, Hushchyntsi, Nova Hreblya, Ulyanivka, Kyrnasivka, Shpykiv, Suvorivske, Kryshchentsi, Dashiv, Yastrubyntsi, Illinetske, Slobodyshche).

The second stage of the DESPRO project is the further implementation of the models developed and the experience in other regions of Ukraine, support for the reform of local self-government and the reform of the administrative and territorial system. Within the period from 2010 to 2012, the Project will provide further support to the communities for decentralised service provision, by expanding the scope of its activities and the spheres of influence. Apart from Vinnytsia Oblast and Crimea, the Project operates in Sumy Oblast. In addition to the field of water supply, DESPRO supports local projects for the re-utilisation of solid household waste.

The 'Local community-oriented development' Project is a joint project by the European Union and the UN Development Programme. The Project assists populations in small cities and in rural communities to organise themselves by establishing community organisations, and to independently determine local development priorities. From the start of the Project's activities in 2007 to September 2010, its operations covered 1,125 villages and small cities in Ukraine.

The aim of the 'Municipal Governance and Sustainable Development Programme', which is also implemented by the UN Development Programme in Ukraine, is to assist participatory governance to improve the quality of life in Ukrainian cities.

The Municipal Governance and Sustainable Development Programme actively helps bodies of local self-government in such cities as Bakhchisaray, Dzhankoi, Evpatoria, Zuya, Novo-Ozerne, Pervoimayske, Shcholkine, Nyzhniogirsky, Krasnogvardiyske, Vinnytsia, Mohyliv-Podilsky, Tulchyn, Kalynivka, Kirovske, Ivano-Frankivsk, Halych, Dolyna, Ukrainka, Kaharlyk, Rubizhne, Lviv, Mykolayiv, Voznesensk, Rivne, Hola Prystan, to improve the sanitary and epidemiological well-being of the population through the creation of the necessary conditions to encourage the engagement of people to collect and store certain types of SHW as recyclable material, and provides the population with SHW removal services at correct level and quality.

Using the social mobilisation approach, the Programme assists the creation of respective organisations of local communities, educational facilities, small businesses and civil society organisations. These organisations are established in selected Ukrainian cities by the self-assistance and effective governance principles. Interventions by the Programme develop these organisations' institutional capacity in such a way as to enable them to plan, mobilise resources and set priorities

in resolving their social, economic and environmental problems in a sustainable manner. This will ultimately promote the achievement of Ukraine's Millennium Development Goals. This is undertaken with the support of the respective city councils and other domestic/ international development agencies. City councils include community plans in their own city development plans and allocate resources for the implementation of these. Therefore, the process of sustainable local development progresses literally by the 'bottom-to-top' principle. It moves from the local level across the entire scheme to the national level.

The main goal of the 'Crimean integration and development programme Project' is to support long-term sustainable development of the Autonomous Republic of Crimea, whilst taking into account its national and cultural diversity. In part, activities of the CIDP UNDP are aimed at fighting poverty in rural districts of Crimea through the implementation of effective models of social and economic development and support of democratic processes, institutes and partnerships.

The Programme cooperated with Crimean authorities at all levels — village, city and district councils, state administrations, the ARC Supreme Council, the ARC Council of Ministers and Crimean line Ministries, including the Ministry of Economy, the Ministry of Education, the Ministry of Agrarian Policy.

Financing for the project is provided by the government of Canada (CIDA), the European Commission and the UN Development Programme.

Apart from that UNDP actively seeks partners to implement new promising directions of activities in the Crimea: skills training for local leaders, the creation of information spaces in rural areas, ensuring the transparency of bodies of power, gender equality promotion, implementation of initiatives to upgrade efficiency and of use of energy, water and land resource.

Experience gained by the Programme in assistance given to participatory governance to improve the quality of life for the populations of twenty nine Ukrainian cities, affirms the Programme's readiness to support the sphere of household waste management at the national and municipal levels and to take part, together with the Ministry of Regional Development, Construction and Housing and Utilities and other interested parties, in the development of an updated strategy of household waste management in residential areas of Ukraine.

RECOMMENDATIONS
of the All-Ukrainian Seminar for Matters of
Solid Household Waste Management
'Sanitation 2011'
2nd-3rd of June, 2011, Berdyansk

The level of cleanness of a city or a village is a reflection upon the image of the local authorities. This however is dependent upon the authorities' ability to create and support the proper functioning of a solid household waste management system in harmony with environmental, sanitary and epidemiological concerns.

This seminar was attended by representatives of local bodies of executive power and local self-government, business leaders, institutions and organizations working in the field of household waste management, representatives of public organisations and foreign companies.

The seminar participants discussed the challenges and prospects for the development of household waste management, familiarised themselves with the experience gained and updated technologies, and also with opportunities to upgrade the level and quality of services. They noted the need for an integrated approach to solving problems with household waste management, priority implementation of the separate collection of household waste, waste-sorting and waste processing technologies, energy-conservation technologies, and discussed the possibilities of extraction and utilization of biogas and effluents from waste dumps and solid household waste landfills.

Having heard and discussed various reports the participants

noted:

- the urgency and importance of the annual All-Ukrainian seminar on household waste management;
- the existence of problems in the sphere of household waste management, which need to be addressed, namely, the lack of separate collection systems of solid household waste, its reprocessing and recycling; inconsistency between energy tariffs for household waste removal services and cost of their provision, degradation of condition of household waste landfills;
- the necessity to attract investments in that area;
- further promotion of the competitive environment is needed;

recommended:

to the Ministry of Regional Development, Construction and Housing and Utilities

- to ensure implementation of the 'Programme for solid household waste management', approved by Decree of the Cabinet of Ministers of Ukraine № 265 of the 4th of March 2006;
- an expedited submission, following the approved procedures, of the draft Law of Ukraine 'On amendments to Article 2 in the Law of Ukraine On public procurement';
- accelerated adoption of such regulations:
 - Changes in the Procedures for tariff setting for household waste removal services, approved by Resolution of the Cabinet of Ministers of Ukraine № 1010, dated the 26th of July 2006 ;

- Procedures for contest-based bidding for provision of household waste removal services;
- Rules of operation of facilities for handling, sorting, processing and disposal of household waste;
- Methodology for separate collection of household waste,
- DSTU (State Standard) 'Containers for household waste. General technical requirements';
- DBN 'composition, contents, designing procedures, coordination and approval of plans for sanitation cleaning of a residential area';
- promoting searches for investors and attracting financial resources in household waste management sphere, and implementation of new technologies in the regions;
- coverage, in the media, solutions to the problems and issues of reform and development of household waste management sphere in Ukraine;

for local bodies of executive power and local self-government

- to approve local programs of solid household waste management, ensuring their financing;
- to determine, on a competitive basis, legal entities that, within a specified territory, shall collect and transport household waste by specially equipped carrier vehicles;
- initiate conclusion, by the owners or tenants, users, including tenants of apartment houses and land plots, of contracts with entities, which, in accordance with the approved procedures, were determined to be providers of the household waste removal services;
- to approve plans for sanitation of residential areas;
- to adopt rules for household waste removal service provision;
- to exercise control over compliance by legal entities and private individuals with the requirements in the sphere of household waste management, and to consider administrative offense cases, or transfer the respective materials to the other state bodies, in case of deviations from legislation on waste;
- envisage in local budgets reimbursements for the difference between approved tariffs for household waste removal services and economically substantiated costs of provision of those services;
- carry out organisational measures to establish a proper system of collection of household waste;
- assist in the implementation of modern methodologies and technologies in the sphere of household waste management: use separate collection of household waste, waste sorting, waste processing energy-efficient technologies, technologies for production and utilization of biogas, effluents neutralisation in waste dumps and solid household waste landfills;
- to assist investment attraction, to use leasing and credit plans to solve problems in the sphere of household waste management;
- to carry out explanatory work among the population about ways to reduce negative impact of waste on the environment and human health;
- coverage in the media of solutions to the problems and issues of reform and the development of household waste management in Ukraine.

STANDARD AGREEMENT
on provision of household waste removal services

_____ 20__
(Name of city/ village)

(Name of the economic entity that provides the services,

or of company accounting for the assets (entity authorised by them)

in the person of _____,

(position, full name)

proceeding from _____,

(document name, date and number)

approved by _____

(name of authority)

(hereinafter - "the Contractor"), as one Party hereto, and

(full name of the private individual who is the owner

(tenant, lessee) of apartment (house)

or _____

(name of legal entity)

in the person of _____,

(position, full name)

proceeding from _____,

(document name, date and number)

approved by _____

(name of authority)

(hereinafter - "the Customer"), as the other Party hereto, have made and entered the present Agreement about the following

Subject Matter of the Agreement

1. The Contractor hereby undertakes to provide household waste removal services, in accordance with a schedule, and the Customer undertakes to make payments for the services, according to the tariffs set, within the time limits and on terms and conditions envisaged by the present Agreement (hereinafter - "the Services") on the basis of the decision

(name, date and number of the document specifying

the contractor for household waste removal services)

and in accordance with the sanitation plan approved

(name, date and number of act on approval of plan

of sanitation of city/ village)

List of Services

2. The Contractor shall provide the Customer with services for removal of solid, bulky, renovation and liquid waste.

3. Services for removal of solid waste shall be provided by _____ plan.

(container, containerless - specify)

4. For removal of solid waste by the container scheme, technically serviceable containers shall be used _____

(quantity)

_____ with the capacity of _____ cubic meters, belonging to _____
(the Customer,

the Contractor - specify)

including those for separate collection, in part, the following household waste:

polymer waste - _____
(quantity)

of containers with the capacity of _____ cubic meters, belonging to _____;
_____;

(the Customer, the Contractor - specify)

glass - _____ containers with the capacity of _____ cubic meters ,
(quantity)

belonging to _____;
(the Customer, the Contractor - specify)

paper - _____ containers with the capacity of _____ cubic meters
(quantity)

belonging _____;
(the Customer, the Contractor - specify)

non-ferrous metals – _____ containers with the capacity of _____
(quantity)

cu. meters belonging to _____;
(the Customer, the Contractor - specify)

organic matter, which is a part of household waste, -

_____ containers with the capacity of _____ cubic meters belonging to
(quantity)

(the Customer, the Contractor - specify)

secondary raw material, which is a part of household waste, - _____
(quantity)

containers with a capacity of _____ cu. meters belonging to _____;
_____;

(the Customer, the Contractor - specify)

hazardous waste, which is a part of household waste, - _____
(quantity)

containers with a capacity of ____ cubic meters. belonging to _____
(Name

_____ and location of the company licensed to

_____ operations in the sphere of hazardous waste management)

The Contractor shall remove solid waste by the container scheme from

_____ to _____.

5. For removal of solid waste by the containerless scheme, the Customer shall be obligated to place at sites, as agreed upon with the Contractor, from ____ to _____, and / or from ____ to _____ closed waste containers with a capacity not to exceed 0.12 cu. m.

6. For removal of large-size and repair waste

_____ containers shall be used, with a capacity of 8 or more (quantity)

cu. meters, for placement of which in compliance with the requirements of sanitary-epidemiological legislation, the Customer designates a special paved area at the following address:

_____ Containers belong to _____ (the Customer, the Contractor - specify)

Transfer of hazardous waste being a part of household waste shall be done by the Customers and the providers of services for removal of waste in accordance with sanitary legislation by specialized companies that obtains licenses to conduct operations in the sphere of hazardous waste management.

7. Loading of waste shall be done by:

solid _____, (the Customer, the Contractor - specify)

and repair of large _____ (the Customer, the Contractor -

_____ specify)

8. The Contractor shall remove:

liquid waste _____, (time period, or by application of the Customer - specify)

but not less than once every six months;

large-size and repair waste _____ (time period, or by application

of the Customer - specify)

9. The type and number of carrier vehicles, specially equipped for that purpose, which are necessary for transportation of waste, shall be defined by the Contractor.

Measurement of volumes and determining of service quality

10. The volume of services shall be calculated on the basis of quotas, approved by a body of local self-government.

11. Calculation of volume and value of services shall be undertaken in accordance with Annex 3 to the Rules for provision of household waste removal services.

Payment for the services

12. The settlement period shall be one calendar month.

13. In cases of a monthly payment system being agreed, payments shall be made not later than on _____ day in the period following the the settlement period.

In case of application of upfront payments for the services, payments shall be made for _____ months, in the amount of UAH _____.

14. Services shall be paid _____
(in a cash or cashless form -

_____.
specify)

15. Payments shall be made to the settlement account _____

(bank details)

via _____.
(name of banking institution or Contractor)

16. If necessary, the Contractor shall _____
(time period)

recalculate the value of actually provided services and inform the Customer about the results.

17. In the event of change in the value of a service, the Contractor shall notify the Customer about it not later than 30 days, specifying the reasons and respective substantiations.

18. Existence of any benefits, granted by effective legislation, shall be confirmed by

_____.
(name of the document that confirms granting of benefits)

Rights and obligations of the Customer

19. The Customer shall have the right to:

1) obtain accurate and timely information about services for waste removal, particularly on their price, the total amount of monthly payment, the structure of tariffs, standards of service and the waste collection schedule;

2) full compensation for any losses incurred as a result of the Contractor's failure to provide services, or incomplete provision thereof;

3) removal any deficiencies in service delivery by the Contractor, within five days after the Customer's request;

- 4) verification of compliance with the criteria of service quality;
- 5) upon the Customer's consent, make changes in this Agreement that affect the amount of payment for services;
- 6) reduction of payment for services in the event of deviations from the waste removal schedule;
- 7) exemption from payment for the services for the period of temporary absence of the Customer and / or their family members, on the basis of a written application and a document confirming their absence – such as a note from the place of temporary residence, work, treatment, training, military service or imprisonment.

20. The Customer shall undertake to:

- 1) make payments, within the time limits specified in the agreement, for the waste removal services provided;
- 2) assist the Contractor in providing services to the extent and manner specified by this agreement;
- 3) jointly with the Contractor, identify sites for location of containers; create conditions for unrestricted access to such sites and cesspits;
- 4) arrange the container sites, maintain their proper sanitary condition, provide lighting at night time;
- 5) ensure proper collection and storage of waste, placement of the required number of containers for loading of solid, large-size and repair waste, preventing them from overflowing; maintain containers in compliance with sanitary norms and rules;
- 6) arrange cesspits in compliance with sanitary norms and rules; prevent dumping of other waste into those;
- 7) ensure separate collection of household waste

Rights and obligations of the Contractor

21. The Contractor shall have the right to demand that the Customer:

- 1) arrange the container sites and provide for maintenance of proper sanitary condition of containers, container sites and cesspits, which are in the ownership of the Customer;
- 2) in a timely manner, collect and properly store waste; place the necessary number of containers to prevent their overflowing;
- 3) ensure separate collection of household waste.

22. The Contractor shall undertake:

- 1) to provide services in accordance with the legislation on waste, sanitary norms and rules, rules for waste removal services, approved by the Cabinet of Ministers of Ukraine, and this agreement;
- 2) coordinate with the Customer the location for container sites, determine the necessary number for collection of household, large-size and repair waste ;inspect availability of such sites according to calculations;
- 3) arrange the container sites and ensure maintenance of proper sanitary condition of containers and container sites, in case those are in the ownership of the Contractor;
- 4) collect and transport waste for by specially equipped carrier vehicles;
- 5) eliminate the solid waste dumps in the event of its formation at the site through non-observance of transportation schedule; ensure cleaning in the event of spillage of household waste during loading into specially equipped carrier vehicle;
- 6) to transport waste only to specially designated areas or objects on household waste

management;

7) to provide timely and reliable information on tariffs for services, payment terms, waste removal schedule;

8) to eliminate any violations of the requirements to concerning proper quality of services and keep records of claims made by the Customer in connection with non-fulfilment of the terms and conditions of this agreement;

9) upon the Customer's request, to arrive within three hours and eliminate deficiencies within 24 hours. In case the deficiencies have not been eliminated within three business days, to conduct appropriate recalculations of the payment amount;

10) to compensate, in accordance with legislation and the terms and conditions of this Agreement, any damages inflicted to the Customers by non-provision or incomplete provision of services;

11) to reduce the size of payment for services in the event of temporary absence of the Customer and / or their family members, on the basis of their written request and a document confirming their absence - a note from the place of temporary residence, work, treatment, training, military service or imprisonment.

The Contractor shall have other obligations in under the Law.

The Parties' liabilities for non-fulfilment of the Agreement

23. The Customer shall be responsible under the law and this agreement for:

1) late payment for services;

2) failure to fulfil obligations stipulated in this contract and law.

24. The Contractor shall be responsible for:

1) failure to provide, or incomplete provision of services, which resulted in damage to the Customer's property, their life or health;

2) failure to fulfil its obligations stipulated in this contract and law.

Resolving of Disputes

25. Disputes under the agreement between the parties shall be resolved by way of negotiations or through court proceedings. Disputes related to claims may be settled in a pre-trial order by way of their satisfaction.

26. In case non-provision, or incomplete provision of services, or a decrease in their quality, the Customer shall summon the Contractor's representative to make a Statement of Claim, stating the date, types of deviation from of quantitative and qualitative indicators, etc. The representative of the Contractor must arrive within _____ days.

(number)

27. The Statement of Claim is prepared by the Customer and the Contractor's representative, and confirmed by their signatures.

In case the Contractor's representative fails to arrive within the period of _____, or in case they refuse to sign the Statement, the Statement shall be considered valid if signed by at least two Customers or a an elected representative of the house,

street, block or other community body of self-organisation of population.

28. The Statement of claim shall be submitted to the Contractor, which, within three working days, must make the decision on recalculation of the size of payment or return to the Customer its substantiated written refusal to meet its claims.

Force majeure circumstances

29. The Parties hereto shall be exempt from any liability under the Agreement in case of emergence of circumstances of insurmountable force (of man-caused emergencies, natural or environmental dictators), which make it impossible to provide services and payment under this contract.

Term of the Agreement

30. The present Agreement shall remain valid from _____ to _____ and shall take effect after its signing.

Conditions for change, extension, termination of this agreement

31. Changing the terms and conditions of the agreement shall be made in writing by the Parties' mutual consent.

In case such consent has not been reached, the dispute is resolved via court proceedings.

32. The Agreement shall be deemed to have been extended, unless one month prior to the expiry, either of the Parties stated its wish to terminate or review the Agreement.

33. The effects of the Agreement shall be terminated in the event of expiry of its term. The Agreement shall also be terminated in other instances envisaged by Law.

Final Provisions

34. This agreement has been made in two copies, both of them being of equal legal force. One copy is kept with the Customer, and the other – with the Contractor.

Rules for household waste removal service provision and extracts from the legislation on waste, sanitary norms and rules of household waste management and maintenance of populated areas have been made known to me.

(The Customer's Signature)

(Full name of private individual,
passport data

(Name of legal entity,

(Series, number, date and authority
of issuance);

proceeding from the document

Name of legal entity
acting on the basis of document),

(name, approval date and authority
information

(name, approval date and authority), on state registration and

information

_____	_____
registration and banking details)	banking details)

Place of residence of private individual, Place of business of legal	Place of business of legal entity entity
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_____	_____
(Postal code, Oblast, District,	(Postal code, Oblast, District,

_____	_____
city, village, street, number of house and apartment)	city, village, street, number of house and apartment)

Identification Number _____ Identification Code _____

Identification Code _____

Parties' Signatures

Customer	Contractor
----------	------------

_____	_____
L.S. (in presence of seal)	L.S. (in presence of seal)