







WASTE MANAGEMENT TECHNOLOGIES IN REGIONS, GEORGIA

National Waste Management Code Review



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Waste Management Technologies in Regions, Georgia

National Waste Management Code Review

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WASTE MANAGEMENT TECHNOLOGIES IN THE REGIONS - GEORGIA

Draft Waste Code Review Report

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ACRONYMS

AOR Agreement Officer Representative

CAPEX Capital expenditures

CBO Community-based organization

CENN Caucasus Environmental NGO Network

COP Chief of Party

DCOP Deputy Chief of Party

EBRD European Bank for Reconstruction and Development

EIA Environmental Impact Assessment

EU European Union GHG Greenhouse gas

GOG Government of Georgia

ICMA International City/County Management Association

ISC Institute for Sustainable Communities
ISWM Integrated solid waste management
KfW German Credit Bank for Reconstruction

LLC Limited Liability Company M&E Monitoring and evaluation

MESD Ministry of Economy and Sustainable Development
MENRP Ministry of Environment and Natural Resource Protection
MRDI Ministry of Regional Development and Infrastructure

MSW Municipal Solid Waste
OPEX Operating expenditures
PMP Performance Monitoring Plan

SIDA Swedish International Development Agency

STTA Short-term technical advisor SWM Solid waste management

SWMCG Solid Waste Management Company of Georgia

TA Technical assistance

USAID United States Agency for International Development

WMTR Waste Management Technologies in Regions

NEW WASTE CODE OBSERVATIONS AND COMMENTS

1. EXECUTIVE SUMMARY

At the request of the Ministry of Environment and Natural Resources Protection (Ministry), The USAID-supported Waste Management Technologies in Regions, Georgia Project (Project) reviewed the draft waste code (version dated June 16, 2014) currently under consideration by the Government of Georgia. This review was not intended to provide a legal opinion of the proposed legislation but to present observations and recommendations related to the intended Integrated Solid Waste Management (ISWM) development process and target outcomes that is the basis for the new legal framework that will result from adoption of the waste code. This review is also based on the findings of a recent assessment of existing solid waste management conditions in the Kakheti and Adjara regions of Georgia undertaken by the Project.

Clearly, the intent of the new waste code is: 1) to improve the manner by which all types of solid waste are managed in Georgia and 2) to serve as a basis by which Georgia will meet its obligations under the recent Georgia/E.U. Association Agreement. This review is intended to provide an opinion as to whether the draft waste code, as written, will help accomplish the above intended results. As a basis for the review, a number of core questions were considered. These questions and the Project's opinion of whether the current draft addresses them are presented below:

- 1. Does the proposed waste code as drafted meet the objective of improving solid waste management conditions in Georgia? Review Opinion: The current draft defines a proposed legal framework and institutional structure that can be effective in improving solid waste management conditions in Georgia. The new waste code, as written, also provides a basis for developing an effective national strategy and national/municipal plans by which the desired improvements and target outcomes can be achieved. Ultimately, the effectiveness of the new legal framework will be a function of securing sufficient economic resources to achieve the desired outcomes as well as developing the means to monitor and enforce compliance with the new waste code stipulations.
- 2. Are the intended outcomes of the new code as drafted achievable in Georgia in the near and longterm? Review Opinion: Significant improvements are required in all facets of solid waste management in Georgia to achieve a basic effective level of collection and disposal service and the intended ISWM outcomes of the new waste code. These improvements will be achievable in the near and long-term so long as there is a recognition of the higher costs that will, most likely, be associated with the required improvements and the extent and source of economic resources that will be available to cover these costs. The pace of achieving the desired results may be a function of economic resource limitations especially if progress is dependent on the application of the "polluter pays" principle through tariff reform. (The intended outcome of creating a "polluter pays" environment and achieving total cost coverage through this principle may be one of the more difficult achievements to realize given the current political sense relative to the municipal assessment and collection of SWM tariffs.) The matching of required financial resources and the funds available to achieve meaningful progress will be important in national and municipal planning. With effective associated financial planning, the intended outcomes can be achieved in the time frames presented in the draft waste code and the Association Agreement with the European Union.
- 3. Does the proposed code as drafted meet the objective of establishing a legal framework that will be in compliance with the E.U. harmonization conditions stipulated in the Association Agreement? Review Opinion: The new waste code is consistent with the ISWM legal framework that currently exists in E.U. countries or others that have executed similar Association Agreements. The development of supplementary sub-laws, as well as the required national and municipal plans referenced in the draft waste code will also need to be consistent with the institutional, technical and regulatory SWM standards in the E.U.
- 4. What are some of the key issues that the government of Georgia will need to address in defining its SWM strategy and plan? Review Opinion: One of the key issues that the Government will need to address is the availability of sufficient economic resources and technical capacity at all competent

levels of government to plan and implement the desired outcomes. Internally, the Ministry will also need to develop sufficient staff resources and technical capacity to monitor and enforce compliance with the new waste code and its subsequent sub-laws and regulations. This will be a critical issue in strengthening the regulatory driver for the required improvements.

5. What are some of the key issues that municipalities will have to face in achieving the objectives of the new waste code? Review Opinion: As defined in the drafts of the new waste code and national strategy, municipalities will continue to be responsible for collection of solid waste. They will also be responsible for expanded collection service coverage to their entire population. In addition, municipalities must also prepare for implementation of separate collection of recoverable materials as a means for enhancing recycling and composting processes. Municipalities must also prepare for the probability that tipping fees will be charged at new regional landfills. In all of these cases, the municipal cost of providing SWM services are expected to increase with the result that municipalities will have to support the necessary improvements through increased budget allocations or by achieving an increased level of cost recovery through tariff reform.

In general, the proposed waste code, as defined by the June 16, 2014 draft, will provide a meaningful legal framework by which to undertake planning for effective solid waste management programs throughout Georgia. However, there is considerable work to be done given the current state of solid waste management in Georgia and the improvements required to achieve the desired outcomes of the new waste code. The finalization of a national strategy as well as the development of national and municipal SWM plans will be important in establishing the actual roadmap to be followed in achieving the necessary improvements. Fortunately, the Association Agreement, in addition to its stipulated mandates, also provides an opportunity to learn from the experiences gained in other countries who have worked towards improving their solid waste management programs to E.U. standards. These experiences will be valuable both in planning as well as the physical implementation of alternative approaches that are technically and economically viable.

2. BASIS AND INTENT OF THIS REVIEW

The following section presents observations and recommendations concerning the various chapters of the draft waste code. (Comments and observations relative to the individual articles within the draft waste code are presented in Annex 1 of this review report.) This is followed by a listing of current situational gaps and impediments to the implementation of the intent of the draft waste code. Recommendations are also provided on the manner by which the Ministry can move forward after adoption of the new legal framework that is the basis of the proposed waste code. Generally, the Project does not believe that there is a need to significantly alter the content of the draft waste code but that the Ministry needs to closely consider the existing SWM situations in Georgia in finalizing the national strategy and developing a specific plan to implement the necessary improvements.

3. CHAPTER AND ANNEX REVIEW, GAPS AND RECOMMENDATIONS

Generally, the proposed waste code, as drafted, presents a logical and thorough basis for the intended SWM results and serves as a sound starting point for the process of improving solid waste management throughout Georgia. The actual methodology to be used in achieving the desired results will be a function of the strategy that evolves from the new legal framework and the national and municipal plans for implementing the desired improvements. Accordingly, the gaps, impediments and recommendations presented below are, for the most part, aimed at addressing the forward process that should be utilized to accomplish the objectives of the new waste code upon its adoption.

Chapter I – General Provisions

 Implementation of a new code related to solid waste in Georgia is important because worldwide experience has demonstrated that meaningful improvement in Solid Waste Management (SWM) practices and facilities can only occur if there is a strong legal framework that provides a firm basis (and possible mandate) for the manner by which improvements can be achieved and sustained. Experience in regions with well-developed SWM systems (such as the European Union and the United States) shows that progress in improving SWM conditions is a function of a number of development drivers that compel or support the improvement process. These include regulatory, economic, environmental, political and social drivers. (A summary of the relevant SWM development drivers and their status in Georgia is presented in Annex 2.) The regulatory driver (as defined by well structured, effective and enforced laws and regulations) is recognized as the strongest of the development drivers to accomplish SWM improvements and sustain those improvements in the future. As a result of an effective regulatory driver, solid waste generators and stakeholders who are responsible for designing, building and operating SWM facilities and services are required to adhere to specific rules and regulations that define how they must fulfill their SWM responsibilities. Since the Ministry will be responsible for overseeing these activities, an effective means of monitoring and enforcing the requirements of the new code will be important. Ultimately, the actions of the Government in adopting a national strategy and plan should recognize the importance of these drivers and seek to enhance them to achieve the target SWM improvements. This may include initiatives that are not directly defined as a requirement of the new waste code such as the support of market conditions for recovered solid waste stream content.

- 2. The Association Agreement between Georgia and the European Union provides a strong incentive for creating the new legal framework represented by the draft waste law. The Association Agreement requires that the Government of Georgia support the improvement of many public functions and infrastructure (including solid waste management) to harmonize future practices in Georgia to E.U. standards. The solid waste related E.U. standards are primarily defined by E.U. Directive No. 2008/98/EC on Waste and Directive No. 1999/31/EC on the Landfill of Waste as amended by Regulation (EC) No 1882/2003. (The target standards to be met in Georgia are stipulated in Annex XXVI of the Association Agreement.) The experiences gained in meeting the E.U. Directives in other countries should be important to defining the manner by which the Georgian SWM improvements can be accomplished. This experience can also be supplemented with a number of E.U. guidance documents and capacity building elements available for important SWM activities. A number of these are referenced in the comments presented in this review document. (Support Information E.U. Guidance on the interpretation of key provisions of Directive 2008/98/EC on waste and E.U. Report on Implementing E.U. Waste legislation for Green Growth 2011)
- 3. Annex XXVI of the Association Agreement stipulates a timetable by which the standards and requirements of the above directives (along with others related to environmental protection) are to be implemented in Georgia. This timetable will require aggressive action by all stakeholders to achieve the intended results in the stipulated time periods. Hopefully, the Agreement will also serve as a basis for securing new financial resources through E.U. harmonization support to accomplish the required SWM planning and development activities of the Government of Georgia and its municipalities. The timeframe for achieving the various SWM requirements presented in the new waste code draft appear to be consistent with the action deadlines stipulated in the Association Agreement.
- 4. The creation of the new legal framework will be the basis for establishing a subsequent national strategy and plan intended to define the manner by which competent stakeholders will accomplish the desired goal and objectives of the new waste code. While the current draft of the proposed waste code establishes the basis for creating SWM processes and systems that are consistent with E.U. standards, it must be clearly recognized that existing solid waste management conditions in Georgia will require significant improvement to achieve the same level of SWM sector performance as currently exists in the E.U. This will include improvements in all facets of SWM including collection, transport, recovery and disposal processes and facilities. This may be especially difficult for Georgian municipalities who may be having difficulties in even meeting their basic SWM collection responsibilities.
- 5. The nationwide SWM improvements that must be achieved will, most likely, lead to <u>increasing costs</u>. For example, the existing <u>official</u> disposal facilities throughout Georgia are currently being improved by the Ministry of Regional Development and Infrastructure through the Solid Waste Management Company of Georgia. Historically, substandard disposal sites provided low-cost disposal options for municipalities since there was little active operation (cover, compaction, leachate management, etc.) of

the sites. Improving disposal facilities to a higher design and operational standard will undoubtedly lead to the need for increased cost coverage if the disposal facility improvements are to be sustained. (To justify these cost increases to the public who may need to pay them as a result of the "polluter pays" principal of the new legal framework, the case may need to be made through public education that there are inherent "costs" to the negative environmental and health effects associated with past substandard disposal practices. This will help to gain public (and political) support for the increased costs of all types of SWM activities.) Since full cost recovery is anticipated to be a basic principle of the strategy, the Ministry may need to closely evaluate affordability and willingness to pay issues that will impact the ability to increase cost recovery from the extremely low levels currently experienced in most Georgia municipalities. To sustain the progress required to meet the objectives of the new waste law and Association agreement, government subsidization may be required.

- 6. There are currently many locations (villages, rural areas, etc.) in Georgia where formal solid waste collection services are not provided due to accessibility or budgetary issues. This has led to the creation and use of many unofficial, random dumping sites for disposal in these unserved areas. Accordingly, many Georgian municipalities are now faced with the need to increase solid waste collection service coverage to outlying villages and settlements which are often not readily accessible to conventional solid waste collection equipment. The cost associated with expanding collection service coverage will, most likely, need to be borne by the municipalities along with any other responsibilities that they may have to assume as a result of the new legal framework.
- 7. Fundamental to achieving the desired results of the new legal framework is the need to secure sufficient economic resources to accomplish and sustain the required improvements. At a minimum, the construction of new regional landfills, the likely construction of transfer stations to reduce the cost of waste transport from some municipalities, and the creation of new waste processing infrastructure (including the means for separate collection as stipulated in the new waste code) will require economic resources to implement and sustain these processes. The draft waste code stipulates the development of a national strategy and plan to define the manner by which the requirements of the new legal framework will be achieved. One of the key elements that the national strategy and plan should address is an assessment of the cost impact of achieving the new legal framework's intent. This should include the economic requirements that will need to be borne by the municipalities who will likely retain the responsibility for solid waste collection and transport while also preparing for future separate collection for recovery purposes or possible regional public responsibility for disposal facilities. The assessment and availability of required economic resources may determine that the pace (and possibly design) of desired SWM improvements will be limited by the availability of financial resources particularly at the municipal level. This will also be a major factor in determining the best means for achieving the cost recovery and polluter pays concepts inherent to the E.U. waste policies that the Government of Georgia has agreed to adopt.
- 8. In finalizing its strategy and developing a national plan, the Ministry should consider an assessment of the impact that other existing Georgian laws may have on the SWM development activities required as a result of the new legal framework. For example, the current requirements of laws pertaining to procurement of services, environmental impact permitting and registration, etc. could have an impact on the activities resulting from the new SWM framework. The national strategy and plan will need to either incorporate the limitations created by other Georgian laws and regulations or seek to recommend changes to them that will help to increase the prospects of achieving the desired results of the new legal framework and the Association Agreement in an optimal manner.

Gaps and Impediments Related to this Chapter

- 1. Poorly defined solid waste management deficiencies including ineffective cost recovery programs and varying collection standards and service coverage
- 2. Lack of well-defined SWM rules and regulations and the means to enforce current legal requirements
- 3. No full understanding of the cost implications of the new target solid waste management system

especially for municipalities

Recommendations to Address Gaps and Overcome Impediments

- 1. The Ministry should undertake a detailed assessment of existing solid waste management practices and facilities throughout Georgia to serve as a baseline for establishing its overall national strategy and plan and, ultimately, measuring national (as well as regional and municipal) progress in achieving the intent of the new waste code.
- 2. The Ministry should assess current issues and impediments associated with tariff reform for achieving the full cost coverage stipulated in the new waste code and national strategy drafts. This should include affordability and willingness to pay considerations for residential and commercial solid waste generators. This may need to include the potential interpolation of the national political will that led to the Association Agreement to the local political will that will be required for meaningful tariff reform as a means for achieving effective cost recovery.
- The Ministry should evaluate the impact of other laws in Georgia that could affect future SWM initiatives including public procurement processes for private sector participation in future SWM programs.

Chapter II – Competencies and General Obligations

1. The proposed legal framework and follow-on national strategy and plan must clearly define the responsibilities for the future SWM processes and facilities that will evolve from the new waste code. This is a prerequisite for effective planning and budgeting for the specific areas of responsibilities that SWM stakeholders will have in operating and maintaining the envisioned countrywide SWM standard of service. Of particular significance will be the SWM functions that will be the responsibility of Georgian municipalities. Since collection and transport services will remain the responsibility of municipalities, as stipulated in the draft waste code, the need and pace of expanding service coverage to 100% of a municipality's population will need to be considered in developing the national strategy and plan as well as in formulating the required municipal SWM plans. This will require effective and ongoing dialogue between the Ministry and the municipalities to assure that they are prepared for their eventual responsibilities in meeting the objectives of the new legal framework including the necessary expansion of their collection service coverage and responsibilities and for tariff reform to achieve a significantly higher level of cost recovery. This should also include the preparation of the municipalities for other additional roles that they may have in the future including the need for preparing for separate collection of recoverable materials and treatment of their waste streams prior to disposal.

Gaps and Impediments Related to this Chapter

- A lack of effective and regular communication between the Ministry and municipalities relative to existing SWM management issues and emerging strategies and plans including the impact of developing new regional landfills and future SWM activities that will, likely, become municipal responsibilities.
- 2. A current lack of technical and management capacity in many Georgian municipalities
- 3. An ineffective tariff system with insignificant contribution to SWM cost recovery
- 4. Potential impediments that may exist in other Georgian laws such as the procurement law which may inhibit private sector participation in future SWM programs

Recommendations to Address Gaps and Overcome Impediments

- 1. The Ministry should develop or support a comprehensive public awareness and education program concerning the basis of the proposed waste code and the need to improve SWM services and facilities. This may be critical to gaining public and political support for required improvements and local tariff reform as a means for assuring future cost coverage.
- 2. The Ministry should build on the current political interest on littering issues as a basis for building

- support for the new waste law and its various target outcomes related to all aspects of the ISWM vision inherent to the new waste code as drafted.
- 3. The Ministry should evaluate alternative means and experiences related to the implementation process for Extended Producer Responsibility programs in other E.U. countries given the probable interest in such programs as a means of achieving effective cost recovery in Georgia's future SWM programs.

Chapter III - Waste Management Planning

- 1. Conceptually, any SWM strategy and planning process needs to consider the technical and economic viability of its desired results. For example, a strategy to reduce or eliminate the amount of biodegradable municipal waste brought to landfills must consider what alternative processes can be used to "treat" the biodegradable waste prior to disposal. The utilization of biodegradable waste components in mixed or source separated waste composting processes, for example, may only be economically viable if there are sufficient market or outlets for the compost (including high-quality compost derived from processing source separated waste materials or low-quality compost derived from processing mixed solid waste organic content). The treatment of biodegradable waste simply to decrease its biologically active characteristics (if markets are not available) can create an additional cost (based solely on the cost of treatment without any revenues derived from the sale of output materials) that must also be borne by waste generators if the polluter pays principle is to be fully applied as a pass-through cost from the municipalities need to achieve cost recovery. While the treatment of biodegradable waste may have long-term environmental (and resulting inherent economic) benefits including the mitigation of GHG emissions, the "cash flow" impact of the treatment processes must be closely considered. Accordingly, the development of the new national strategy and plan should include transitional steps to allow progress to be achieved in a manner that recognizes potential resource limitations that may exist. Accordingly, the Ministry should undertake a detailed economic impact assessment of the proposed new legal framework and the target results of the draft national strategy.
- 2. Because of the general need to improve the existing level of service in Georgia's SWM programs, planning and implementation may have to be programmed to generate improvements that are defined by the economic resources available accomplish them. This will require a detailed cost implication assessment for all proposed activities to determine their financial impact on responsible stakeholders, particularly on the municipalities that will maintain their current collection responsibilities while also preparing for separate collection of recoverable solid waste components. The Government's strategy under the new legal framework may need to consider providing near-term economic support through subsidies, enhanced budget allocations or other economic vehicles to support the required improvements particularly for those requirements that will be borne by the municipalities which may include the payment of disposal ("tipping") fees at new regional landfills and the costs associated with the development of separate collection programs.

Gaps and Impediments Related to this Chapter

- Minimal or nonexistent cost recovery through ineffective tariff programs
- 2. A lack of full understanding relative to the cost implications of the requirements of the new waste code

Recommendations to Address Gaps and Overcome Impediments

 The Ministry should undertake a detailed assessment of the cost implications of the proposed outcomes of the new waste code as a basis for effective economic resource planning and the development of the national strategy and plan as well as for development of subsequent municipal SWM plans. This assessment should particularly include the potential economic impact on municipalities will be required to enhance collection service coverage and assume new responsibilities in the future including separate collection, waste treatment and the possible oversight of the regional landfills.

- 2. The Ministry should develop or support capacity building initiatives aimed at improving the technical and managerial capacity of municipalities and companies to prepare them to assume their future responsibilities in the ISWM vision as defined by the new waste code. (The intended Project work in the Kakheti region where the Project will assist Kakheti municipalities in developing their municipal solid waste management plans could serve as a basis or model for improving technical capacity for similar endeavors in other Georgian locales.)
- 3. The Ministry should develop standardized methodology for securing the information that it will need to create the proposed SWM national database. This should include the definition of methodology for deriving information at the local level as well as standard reporting formats to allow efficient incorporation of all data received into the Ministry's database.

Chapter IV – Management of Municipal Waste

The sequence of law, national strategy, national plan, and municipal plans must provide a growing definition of the work that will be accomplished to achieve the desired results of the new waste code (and the stipulations of the Association Agreement). In addition to defining the economic resources that will be required to achieve the intended improvements and to create the desired ISWM recovery focus, technical capacity building will be required to assure that proper and knowledgeable decisions are made in creating all relevant strategies and plans and implementing new facilities or enhancing services. In particular, technical capacity limitations that exist at the municipal level will need to be addressed to assure that the municipalities are aware of the optimum means by which to develop cost-effective and technically sound processes and facilities that comply with the intent of the new waste code.

Gaps and Impediments Related to this Chapter

- 1. A lack of full collection service coverage in many municipalities
- 2. A lack of municipal economic resources for collection service expansion
- 3. A lack of technical capacity in municipalities for development of the new waste code target outcomes
- 4. Ineffective tariff cost recovery processes

Recommendations to Address Gaps and Overcome Impediments

 Since in the waste code will apply to all municipalities throughout Georgia, the ministry should develop or support a program to increase the technical and managerial capacity of municipal officials that will be responsible for developing local SWM plans and implementing the processes and facilities that are required to comply to the intent of the new waste code.

Chapter V – Management of Hazardous Waste

The danger and risk associated with the improper management of hazardous waste (as commonly classified in the European Union and consistent with the proposed criteria presented in Annex III of the draft waste code) warrants stringent monitoring and performance requirements related to hazardous waste management. This should be a high priority in the Ministry monitoring and enforcement program. In addition, periodic review of the penalties associated with improper management of hazardous wastes by generators or contractors may be warranted to assure that they serve as an effective means for assuring compliance. The cost of noncompliance needs to exceed the cost of compliance that may be associated with hazardous wastes treatment and disposal based on an E.U. standard.

Gaps and Impediments Related to this Chapter

- 1. Lack of a means for identifying and classifying materials with particularly hazardous properties
- 2. Lack of treatment and disposal facilities that are capable of managing classified hazardous wastes

Recommendations to Address Gaps and Overcome Impediments

1. In support of developing the proposed sub-law associated with hazardous waste, the Ministry

- should undertake an inventory of sources of potential hazardous waste (as currently defined through applicable E.U. standards) to identify current practices and to determine the estimated magnitude of the hazardous waste stream in Georgia.
- 2. The proposed sub-law on hazardous waste should be as specific as possible in defining the manner by which waste materials would be classified as either hazardous and nonhazardous along with the process that will be utilized by the government in assuring and enforcing compliance. This should include a definition of effective reporting requirements that hazardous waste generators will need to follow in demonstrating compliance and providing information for the Ministry's database.

Chapter VI - Landfills

Currently, Georgia has both official and unofficial disposal sites that are still in use. While the Solid Waste Management Company of Georgia is improving conditions at the official landfills, there are also many informal disposal sites particularly in areas not served by formal municipal collection programs. It is the Project's understanding that the government intends to develop regional landfills throughout Georgia that comply to sound practice design and operational standards (and through the Association Agreement, with the E.U. Landfill directive). The national strategy and plan should include elements to identify and close or remediate these informal dumping sites. This assumes that an alternative means for managing solid waste in the areas served by informal dumping sites is provided in these locales. If this responsibility rests with the municipalities, they should be made aware of it so that they can begin their process of identifying the sites and developing the means for eliminating them.

Gaps and Impediments Related to this Chapter

- 1. Numerous random informal disposal sites particularly in areas not served by municipal collection programs
- 2. a lack of experience and technical capacity on the operation and maintenance of state-of-the-art landfills that comply with E.U. landfill directive standards

Recommendations to Address Gaps and Overcome Impediments

- 1. The Government of Georgia should assure that there is sufficient technical capacity to assume operation of the new state-of-the-art landfills that are currently being developed through multinational bank and donor assistance.
- The Ministry should assess whether existing procurement laws in Georgia effective the viability of securing increased private-sector interest in providing operational and maintenance services at the new regional landfills once they have been developed.

Chapter VII – Permitting and Registration of Waste Management Activities

Permitting and registration are important activities that will help assure effective performance by the entities responsible for SWM services and facilities. Permitting and registration places the responsibility for proper function on specific parties so they can be held accountable for their actions. Accordingly, the permitting and registration process should assure that the permitees have sufficient technical and financial capacity to fulfill their responsibilities in accordance with the requirements of the legal framework. This demonstration of technical and economic capacity should be made a condition of issuing permits particularly for landfill or treatment facility operators and certainly for any processes involving the management of hazardous waste.

Gaps and Impediments Related to this Chapter

1. A general lack of accountability for SWM functions leading to varying degrees of service and municipal solid waste collection

Recommendations to Address Gaps and Overcome Impediments

1. The Ministry should assure that the permit and registration requirements that evolve from the new legal framework assure that the entities and people responsible for providing effective SWM

services or developing/designing/operating new facilities are qualified to do so. This should include the establishment of minimum standards for entities that are granted permits or registered to provide services.

Chapter VIII - Trans-boundary Movement of Waste

The transboundary movement of waste is particularly relevant in considering how classified hazardous waste is managed. As a result of a classification process for determining whether a waste stream is hazardous or not, generators will be responsible for proper disposal of their classified hazardous waste. With increasing standards for management of this material, costs will increase which could lead to improper management practices including an attempt to ship the material to other locales with less stringent standards. The government of Georgia should be prepared to maintain a continuing dialogue with its geographical neighbors to assure that any shipments of hazardous wastes or other waste materials across borders is accomplished in an environmentally sound manner to treatment and disposal facilities that are based on sound standards.

Gaps and Impediments Related to this Chapter

- 1. Lack of independent management of potentially hazardous wastes
- 2. Lack of a means for properly classifying hazardous waste

Recommendations to Address Gaps and Overcome Impediments

- 1. The Ministry should establish an ongoing dialogue with other regional countries to assure that there is no improper transfer of hazardous waste to and from other countries in the region.
- 2. The detail provided through the management of the ministries SWM database pertaining to hazardous waste should be sufficient to assure that there is an ongoing ability to properly monitor and enforce effective classification and disposition of hazardous waste throughout Georgia.

Chapter IX – Record Keeping, Reporting and Waste Management Database

Recordkeeping, reporting and the maintenance of a waste management database will be extremely important in solid waste management planning as well as monitoring the progress of SWM stakeholders in meeting the intent of the new waste code. Through the development process of the new legal framework and its resulting strategies and plans, the means for deriving the required information will need to be defined. A standard format for reporting by companies and municipalities (as well as facilities that may receive waste materials from these entities) needs to be developed so that there is a standardization of the type and amount of information that is submitted to build the SWM database. Based on the information received, the ministry should be prepared to utilize the data to generate periodic reports that demonstrate the progress (or lack thereof) made in achieving the desired results of the new waste code and meeting the commitments of the Association Agreement.

Gaps and Impediments Related to this Chapter

- 1. Current lack of a standard means for deriving SWM data in Georgia
- 2. Inability to directly monitor the accurate amount of solid waste generated in municipalities or companies

Recommendations to Address Gaps and Overcome Impediments

1. The Ministry should, in its subsequent rules and regulations that result from the new legal framework, define in detail data that will be submitted by solid waste generators (municipalities, companies, etc.). This should include the establishment of a standard format for information reporting to allow effective incorporation of information into a composite database while also providing a means for effective regional and municipal performance monitoring and planning.

Chapter X – Administrative violations and Proceedings

The fines and penalties associated with SWM practices that do not comply with the new legal framework

and its subsequent rules and regulations will be very important in assuring that the design intent of new waste code is met. Worldwide experience has shown that, due to economic pressures, some public and private solid waste generators (or entities providing SWM services) have often tried to circumvent stringent rules and regulations as a means of decreasing their operating costs. Meaningful penalties (and enforcement) associated with improper SWM actions can help to prevent this. This requires that the penalties are sufficient to create a high risk for those taking improper actions. The concept of administrative violations and proceedings also requires that there is an effective means for monitoring the performance of a regulated SWM function to assure compliance. There are examples throughout the world of failed legal frameworks that, on paper, seem effective but are not enforced to a point where improper actions prevail. A periodic review of the sufficiency of the fine levels stipulated in the new waste code once in effect may be required to assure that they continue to serve as an effective deterrent to the actions that the fines are intended to prevent.

Gaps and Impediments Related to this Chapter

- 1. The current lack of enforcement of existing basic laws relative to environmental impact
- 2. Lack of staffing and technical capacity for monitoring and enforcing the intent of the new waste code

Recommendations to Address Gaps and Overcome Impediments

- 1. The Ministry will need to evaluate the extent of staffing and resources that will be required effectively monitor performance of all stakeholders to the requirements of the new waste code. Sufficient means will also need to be available to assure proper enforcement of the standards and the administration of the fines and penalties that may result.
- 2. The Ministry will need to assure that the levels of fines and penalties stipulated in the waste code as finally adopted are sufficient to motivate waste generators and other stakeholders to comply with requirements of the waste code.

Annex I, II and III

- 1. While Annex I and II provide classifications of the recovery and disposal operations, Annex III describes the criteria to be used to determine whether waste materials are to be classified as hazardous waste. The proposed sub-law related to hazardous waste referenced in Article 49 and follow-on rules should define, in detail, the protocols to be utilized to test materials for classification. This will be important to assure that waste generators accurately classify their waste materials since the expected costs of hazardous waste transport, treatment and disposal are expected to be substantially higher than costs associated with managing nonhazardous waste. To hold solid waste generators accountable for proper characterization and classification of their generated waste, these protocols should be specific and their use strictly enforced to assure proper classification.
- 2. The classification system and sampling/testing protocols utilized in the E.U. will provide a good model for anticipated Georgian requirements.
- 3. Certified commercial laboratory availability and capacity in Georgia may be an initial issue as the classification process commences in Georgia.

Gaps and Impediments Related to this Chapter

- 1. The lack of an effective classification mechanism for hazardous waste
- 2. Random disposal of potential hazardous waste at existing disposal sites
- 3. Incomplete knowledge of the magnitude and disposition of hazardous wastes in Georgia

Recommendations to Address Gaps and Overcome Impediments

1. The ministry should develop detailed requirements within the proposed sub- lawn hazardous waste by which the material is properly classified to assure the proper segregation of this material from

the nonhazardous waste stream.

2. The ministry should be compared for rigid enforcement of the hazardous waste rules be stipulated in the sub-law hazardous wastes due to its potential danger the public health and the environment. More stringent permitting and registration rules should be considered for entities that will be responsible for transporting, treating and disposing of hazardous waste.

4. RISKS RELATED TO CODE IMPLEMENTATION AND THEIR MITIGATION MEASURES

- 1. The primary risk that may be associated with the new waste code is the inability to meet its requirements and achieve its desired outcomes due to economic resource limitations. This risk may be manifested by current lack of a municipal political will to enforce even the minimal tariff levels that exist in most Georgia municipalities. Increasing costs will need to be adequately covered if improvements are to be accomplished and sustained as the new SWM standards evolve. While the execution of the Association Agreement is a strong political statement of the intent of the national government to comply with current E.U. SWM standards, the political will at the municipal level will be tested if a significant level of cost recovery is to be imposed on residential and commercial waste generators to the level that may be required for effective cost coverage. This risk may be mitigated by the commitment of the national government to support the progress required of municipalities in achieving the new SWM standard during a transitional process while municipal tariff structures are reformed to an effective level.
- 2. The risk of sustainability needs to be considered by the ministry in supporting the implementation of the new waste code. Significant investments will be required to achieve the standards defined by the new waste code and the stipulations of the Association Agreement. Various financial means may be available through donor assistance or the support of multinational banks to develop new processes and facilities that meet the intent of the new waste code. However, the ministry, throughout its planning and development of its monitoring and enforcement mechanisms should closely consider the requirements to sustain improvements once they have been put in place. This is often been a problem in many countries where investments were made but results not sustained through long-term support. To mitigate this risk, the Ministry's future responsibilities should include a continual monitoring of SWM sector performance and enforcement of the adopted standards that assure continuing compliance. Ultimately, the new waste code will only be as effective as its enforcement mechanisms.

To present context for the opinions presented above, individual observations and comments are provided on the various individual articles of the draft waste code which are shown on the following pages.

ANNEX 1

OBSERVATIONS RELATED TO INDIVIDUAL ARTICLES OF THE DRAFT WASTE CODE

Observations and comments related to the individual Articles of the June 16, 2014 draft of the proposed waste code are presented below in red text.

Chapter I – General provisions

Article 1 Purpose and objective of this Law

- a) The purpose of this Law is to provide for the legal conditions for implementation of measures aiming at prevention of generation of waste and increased re-use, for environmentally-sound treatment of waste (including recycling and extraction of secondary raw materials and energy recovery from waste, as well as safe disposal).
- b) The objective of this Law is to protect the environment and human health:
 - c) by preventing and reducing the adverse impacts of the generation of waste;
 - d) by introducing effective mechanisms of management of waste;
 - e) by reducing overall damage caused by resource use and improving the efficiency of such use.

Article 1 - Observations and Comments

1. In addition to stipulating new performance and design standards where potentially adverse environmental conditions are eliminated or reduced to acceptable levels, the above stated purpose and objectives are aimed at minimizing the amount of solid waste that will be generated in the future or that may eventually require disposal in new landfills. The design premise of the new legal framework is based on the conventionally accepted sound practice hierarchy of SWM choices. This hierarchy, which is consistent with that which forms the basis for the E.U. Directives, emphasizes a reduction of the amount of solid waste generated as well as the recovery of solid waste components through recycling and/or composting (or energy through thermal or biological treatment) processes prior to landfill disposal. The draft waste code appears to envision a classic Integrated Solid Waste Management (ISWM) approach that is consistent with the strategy inherent to the European Union SWM framework. The Georgian SWM strategy and plans (national and local) as required in the draft waste code should be developed to define and support the means for accomplishing the desired ISWM results. In many cases, the proposed ISWM approach may require Government support of ancillary processes or initiatives that will be important for meeting the objectives of the new waste code. For example, the viability and success of recovery programs will be a function of available outlets for the materials or energy that may be derived and market development and support may be a prerequisite to the viability and success of new recovery programs. Sufficient market capacity may not currently exist in Georgia or the region to support the near-term viability of resource recovery processes. Accordingly, the government's strategy and plan to implement the intent and requirements of the new waste code may also need to include an assessment of existing market conditions and the manner (and market incentive financial instruments) by which sufficient market capacity will be developed for supporting the recovery intent of the new waste code. This may be an activity that the Ministry should consider undertaking during the finalization of its strategy and plan to determine the prospects and impediments for achieving its desired recovery objectives.

2. While the new legal framework may help to stimulate the interest of the private sector in providing SWM related services and facilities, additional modifications to other Georgian laws may be required outside of those related to the new waste code. For example, an increased role by the private sector in Georgia's future SWM programs may require changes to the national procurement law which has limited the prospects for extensive private sector involvement due to contract term limitations and required annual tender processes. Private sector companies will likely not accept the business risks that may be associated with making any investments in collection equipment or treatment technologies under current public contracting limitations. This could also include the prospects for engaging the private sector in providing landfill operational and maintenance services for the new regional landfills if the same limitations apply.

Article 2 Scope

- (1) This Law shall apply to all types of waste, except for those listed in paragraph 2.
- f) The following waste types shall be excluded from the scope of this Law:
 - a) radioactive waste;
 - b) gaseous effluents emitted into the atmosphere;
 - c) land (in situ) including unexcavated contaminated soil and buildings permanently connected with land:
 - d) uncontaminated soil and other naturally occurring material excavated in the course of construction activities where it is certain that the material will be used for the purposes of construction in its natural state:
 - e) waste waters;
 - f) decommissioned explosives;
 - g) faecal matters / manure and other non-hazardous materials of a natural origin used in farming or forestry;
 - h) mining waste, i.e. waste resulting from the prospecting, extraction, treatment and storage of mineral resources and the working of quarries.
 - i) decommissioned chemicals of military purposes
 - j) non-contaminated sludge excavated in the course of exploitation and rehabilitation measures of land reclamation systems, which are subject to disposal on the ------lines of the system.
- k) The Government will approve a sub-law on the List of Waste and the classification of waste according to its types and properties.

Article 2 - Observations and Comments

1. While the scope defined in Article 2 does not define hazardous waste as an excluded waste subject to its own legal framework and rules and regulations, it should be recognized that the inherent health, safety and environmental risks associated with hazardous waste (as defined by effective classification criteria) will require more stringent control, processes and facilities than would, most likely, be required for other solid waste materials classified as nonhazardous. Based on Item 3 of this article, hazardous waste classification and management criteria will be defined through the adoption of a follow-on sub-law.

Experience in the European Union and the United States has clearly demonstrated that the added risks associated with hazardous waste often lead to significantly higher costs for collection, transport, treatment and disposal of these materials. As a result, the criteria by which solid waste materials are classified as hazardous or non-hazardous needs to be specific (as should be defined in the subsequent sub-law) to assure that all solid waste materials are managed in the proper manner. Improper classification or management of potentially hazardous materials as a result of poorly defined criteria or enforcement can lead to situations where there is a significantly increased level of risk to people involved in solid waste management as well as to the environment and the public. This will require that the ministry consider an effective monitoring and enforcement mechanism to assure compliance.

Article 3 Definitions

For the purposes of the present Law:

- "waste" means any substance or object which the holder discards or intends or is required to discard.
- "hazardous waste" means waste which displays one or more of the hazardous properties listed in Annex III to this Law;
- "non-hazardous waste" means waste which is not covered by the definition for hazardous waste:
- "household waste" means waste generated from population;
- **"municipal waste"** means household waste, as well as other waste which, because of its nature or composition, is similar to household waste;
- "inert waste" means waste that does not undergo any significant physical, chemical or biological transformation. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or affect other matter in a manner that will give rise to environmental pollution or harm to human health.
- **"biodegradable waste"** means any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard;
- "liquid waste" means any waste in liquid form;
- **"healthcare waste"** means any waste produced by medical institutions, medical laboratories, medical research centres, nursing institutions and veterinary clinics and pharmaceutical industries and warehouses;
- "animal waste" means waste associated with animals (such as animal bodies, or parts of animal bodies manure, meat production waste, animal testing waste and etc.);
- "specific waste" means those types of waste arising from products, which in view of their nature and wide spreading when become waste require particular management measures and special care (such as packaging, oils, tyres, motor vehicles, batteries, accumulators and electric and electronic equipment and etc.);
- "producer of a product that becomes specific waste" means any natural or legal person who, manufactures, processes, treats, sells or imports products that at the end of its life-cycle becomes specific waste;
- "product" means all movable items, even if it is an integral part of other movable or immovable item. Product also includes goods, placed on the market, regardless of whether it is intended for the end consumer and whether new, used or repaired, whether it is delivered or otherwise

- made available, for commercial or non-commercial purposes, whether in return for payment or free of charge. For the purposes of this Law it does not include services related to items.
- "placing on the market" means the first supply of a product to the market from local production, import, lease or in other way on the market on the customs territory of Georgia excluding free industrial zones, in the course of a commercial or non-commercial purposes, whether in return for payment or free of charge. Each subsequent supply of the product is not considered as placing on market;
- "resource" means all primary and/or secondary material resources, including waste when it is used instead of other primary resources;
- "waste producer" means anyone whose activities produce waste (original waste producer) or anyone who carries out pre-treatment, mixing or other operations resulting in a change in the nature or composition of this waste;
- **"waste holder"** means the producer of the waste or the natural or legal person who is in possession of it;
- "waste transporter" means any natural or legal person carrying out transport of waste;
- "operator"; means any natural or legal person who is given a right to manage whole or part of waste collection facility or temporary storage facility or waste treatment facility;
- **"waste management"** means the collection, temporary storage, transport, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites;
- "waste treatment" means recovery or disposal measures according to Annex I and II, including pre-treatment prior to recovery or disposal;
- "pre-treatment of waste" means preliminary operations prior to recovery (R12) or disposal (D13), including pre-processing such as dismantling, sorting, crushing, compacting, pelletising, drying, shredding, repackaging, separating or mixing etc.
- **"pollution"** means introduction of contaminants into the environment that may cause harmful impacts on the environment or the human health
- "littering" means discarding, throwing and/or abandoning of waste in the environment, except in containers or collection facilities authorized for this purpose
- "prevention" means that measures are taken before a substance, material or product has become waste, that reduce
 - the quantity of waste, including through the re-use of products or the extension of the life span of products;
 - the adverse impacts of the generated waste on the environment and human health; or
 - the content of harmful substances in materials and products;
- "recovery" means any activity the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function as listed in Annex I of this law, but not limited to it. Recovery includes recycling;
- "re-use" means any operation by which products and/or components before they become waste are used again for the same purpose for which they were conceived;
- "preparation for re-use" means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing;
- "recycling" means any recovery operation by which waste materials are reprocessed into

- products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations;
- "collection" means the gathering of waste, including the preliminary sorting and preliminary storage of waste for the purposes of transport to a waste treatment facility;
- "separate collection" means the collection where a waste stream is kept separately by type and nature so as to facilitate further treatment;
- "transport" means the movement of waste to a waste storage and/or treatment facility;
- "disposal" means any of the operations which are listed in Annex II of this Law, but not limited to it;
- "waste treatment facility" means a stationary or mobile technical or non-technical unit where waste treatment operations are carried out (including, waste transfer stations and the places where the facilities are located);
- "temporary storage facility" means the facility where waste is stored, for less than 3 years if the waste is destined for recovery or for less than 1 year if it is destined for disposal;
- **"waste transfer station"** means facilities where waste is reloaded for further transport to waste treatment facilities;
- **"landfill"** means a waste disposal facility for the deposit of the waste onto or into land (i.e. underground). This includes internal waste disposal facility (i.e. landfill where a producer of waste is carrying out its own waste disposal at the place of production), but excluding the temporary storage facilities and waste transfer stations;
- "existing landfill" is the landfill that is operated at the date of entry into force of this Law;
- **"waste incineration plant"** means any stationary or mobile technical facility or equipment dedicated to the thermal treatment of waste, with or without recovery of the combustion heat generated, through the incineration by oxidation of waste as well as other thermal treatment processes, such as pyrolysis, gasification or plasma process, if the substances resulting from the treatment are subsequently incinerated;
 - "waste co-incineration plant" means any stationary or mobile technical unit whose main purpose is the generation of energy or production of material products and which uses waste as a main or additional fuel or in which waste is thermally treated for the purpose of disposal through the incineration by oxidation of waste as well as other thermal treatment processes, such as pyrolysis, gasification or plasma process, if the substances resulting from the treatment are subsequently incinerated;
 - "permit" means the permit issued under on Environmental Impact Permit Law of Georgia in compliance with the requirements under this Law and sub laws adopted herein;
 - "Ministry" means the Ministry of Environment and Natural Resources Protection of Georgia;
 - "Natural and legal persons" means those registered within the meaning of the Law on entrepreneurship (except for chapter X of the mentioned law);
 - "waste oils" means any mineral or synthetic lubrication or other industrial oils which have become unfit for the use for which they were originally intended, such as used engine oils, gearbox oils, lubricating oils, oils for turbines, hydraulic oils and etc.

Article 3 - Observations and Comments

1. The definition of "operator" in Item's should include landfill and transfer station operators.

- 2. Does the definition of "littering" contained in Item x mean that the random dumping of waste generated in village or rural areas not served by a formal municipal collection program is subject to the littering penalties included in the new draft code.
- 3. The definition of "collection" contained in Item dd should also include transport to disposal locations. This also applies to Item ff which presents the definition of "transport".
- 4. The definition of "waste treatment facility" contained in Item hh stipulates waste transfer stations as examples of waste treatment facilities. However, in some cases waste transfer stations may not include treatment elements as implied in Item jj which presents a definition of "waste transfer station".
- 5. Item II presents a definition of "existing landfill". This does not differentiate between official and unofficial landfills. Does this make a difference?
- 6. In addition to the definition of "waste incineration plant" contained in Item mm and the definition of "waste co-incineration plant" contained in Item nn, should the listing of definitions include "refuse derived fuel" which could be generated in waste processing facilities? Similarly, does the definition of waste co-incineration plant include any facility that would utilize refuse derived fuel such as a cement kiln? This should be clarified since it could significantly restrict the entities interested in utilizing RDF as a supplemental fuel.
- 7. Does the definition of "permit" presented in Item oo imply that there will be modifications to the Environmental Impact Permit Law of Georgia that will be required as a result of establishing the new legal framework for solid waste management?

Article 4 Waste management hierarchy

Waste management policy and legislation is based on the following priority order:

- a) prevention of the generation of waste;
- b) preparation for re-use;
- c) recycling;
- d) other recovery, including energy recovery;
- e) disposal.
- f) When determining the actual obligations in connection with the waste management hierarchy, as defined in paragraph 1, the following shall be taken into account:
 - a) ecological benefits;
 - b) technical feasibility, using best available techniques as appropriate; and,
 - c) economic feasibility.

Article 4 - Observations and Comments

1. The proposed hierarchy is consistent with that utilized in the European Union. Importantly, the national strategy and plan that evolves from the new legal framework must consider the integrated public service process by which the proposed hierarchy can be realized. For example, core collection and disposal services and facilities throughout Georgia are currently substandard and require improvement to achieve a basic level of service and coverage. While the Solid Waste Management Company of Georgia is working to improve conditions at existing "official" disposal facilities throughout the country, municipalities are also faced the need to expand their collection service coverage to their entire population.

This need for expanded collection coverage should be viewed as a basic element of future improvements in addition to implementing the processes that are based on the waste reduction or recovery aspects of the SWM hierarchy. In addition, the success of applying the solid waste hierarchy in Georgia may be a function of a number of factors not totally in the control of entities currently responsible for direct SWM services, particularly at the municipal level. For example, the emphasis on recycling and other recovery processes will only be realized if there are sufficient markets or outlets for the recovered materials and/or energy. Accordingly, this article correctly identifies economic feasibility as an element of defining the actual obligations conforming to the SWM hierarchy. For example, during the recent solid waste assessment in the Kakheti region, practically all of the municipalities indicated an interest in developing waste treatment facilities. However, the specific characteristics of the waste streams and the municipalities may preclude economic feasibility of such facilities. A key question that needs to be addressed is whether the Georgian version of "economic feasibility" is consistent with that inherent to the E.U. directives that Georgia has agreed to meet. Accordingly, the ministry should consider the completion of an assessment related to the economic impact of the new waste code prior to finalization of the national strategy and plan.

Article 5 Principles of waste management

- (1) Waste management shall be carried out without endangering human health and the environment and in particular without:
 - a) causing risk water, air, soil and plants and animals,
 - b) causing a nuisance through noise or odours,
 - c) adversely affecting the countryside, in particular protected areas and cultural heritage sites.
- (2) Waste management shall be carried out in accordance with the following principles:
 - a) **Precaution** means that in order to avoid the threat or danger to the environment deriving from waste, measures shall be taken even if full scientific certainty is not available;
 - b) **Polluter pays** means that the producer or holder of waste, , shall cover the costs of waste management, ,
 - c) **Proximity** means that the treatment of waste shall be undertaken in the nearest appropriate waste treatment facility, taking into consideration environmental and economic efficiency;
 - d) **Self-sufficiency** means that an integrated and adequate network of facilities for waste disposal and recovery of municipal waste collected is established and operated.

Article 5 - Observations and Comments

1. The four principles presented in this article can provide a strong basis for SWM improvements throughout country. However, the economic and technical capacity required to realize the improvements need to be defined and supported by the government as the implementation of new legal framework moves forward. For example, worldwide experience demonstrates that improving SWM processes and facilities will, most likely, lead to increased costs that can usually be justified by the inherent savings created through mitigating environmental and health effects. However, from purely a <u>cash flow</u> perspective, the expected increased costs for new and improved SWM facilities and processes must be borne by appropriate mechanisms that are capable of creating and sustaining the effectiveness of the improved facilities and processes. If the principle of

polluter pays (as stipulated in item 2c above and contain is a key element of the draft national strategy) is to be fully realized, the costs associated with improved facilities and processes will need to be borne by solid waste generators (including residential, industrial and commercial waste generators). Affordability and willingness to pay issues will need to be considered in defining the cost recovery mechanisms actually utilized to realize the polluter pays principle particularly in the development and implementation of an effective municipal tariff structure. This may require a transitional process for achieving the desired "polluter pays" principle as the actual costs of effective SWM processes (consistent with the E.U. directives as agreed to by the Government of Georgia) increase with the imposition of the new standards that will evolve from the new Waste Code. The ministry should complete an objective assessment of the ability of municipalities to fulfill their responsibilities under the proposed legal framework and as defined in the current draft strategy.

2. The current approach of seeking to develop regional landfills to serve a number of municipalities in George's regions can provide a strong basis for improving disposal functions by creating an increased economy of scale for supporting the required infrastructure and enhanced operational requirements. However, the use of the regional approach for disposal may require some municipalities (who will retain the responsibility for collection and transport) to pay higher costs for increased transport distances to the regional disposal sites. Accordingly, the utilization of transfer stations may be required to optimize the cost of waste transport and to maintain the effectiveness of their collection systems. Transfer stations may also be developed on a regional basis where individual transfer stations serve multiple municipal a commercial waste generation sources. It is our understanding that the development of a transfer station network will be a component of planning the new regional landfills. Appropriately, the transfer station network should be developed by the same entity that is ultimately responsible for the regional landfills to equalize the cost burden associated with transfer among all municipality served by the regional landfills.

Chapter II – Competences and general obligations

Article 6 Competent authorities for waste management

- (1) The Ministry shall be the competent authority for performing the following waste management tasks:
 - a) development and implementation of a uniform state policy on waste management;
 - b) keeping state register for waste and waste data base pursuant to Article 29 and 30;
 - c) developing a National Waste Management Strategy and a Strategy on municipal biodegradable waste pursuant to Article 11;
 - d) developing, coordinating of and reporting on the implementation of the National Waste Management Action Plan pursuant to Article 12;
 - e) issuing permits and registration for waste management activities under this Law;
 - f) promotion of waste prevention, separation, re-use and recycling measures;
 - g) state control of waste management.
- h) The Ministry together with the Ministry of Finance of Georgia shall regulate the transboundary movement of waste pursuant to Article 28.

- i) The Ministry of Labor, health and Social Protection of Georgia together with the Ministry shall regulate and control the management of healthcare waste.
- j) The Ministry of Agriculture of Georgia together with the Ministry shall regulate and supervise the management of animal waste.
- (2) A relevant unit within the system of the Ministry of Economy and Sustainable Development of Georgia shall be in charge of issuing allowance certificates for vehicles for transport of waste.
- k) The Ministry of Economy and Sustainable Development of Georgia and a relevant unit within its system, together with the Ministry shall determine requirements for the transport of waste and present them to the Government of Georgia for approval, regarding:
 - 1) the standards of vehicles to be used for waste transport,
 - m) the containers to be used for waste transport,
 - n) the expertise of hazardous waste transport drivers.
 - o) The Ministry of Regional Development and Infrastructure of Georgia shall be responsible for construction, operation and closure of non-hazardous waste landfills, as well as construction and management of waste transfer stations in accordance with the requirements of this law and relevant sub-legislation. The competences under this paragraph can be assigned to a third person (including municipalities) under a relevant decision of Government.
 - p) The municipalities in accordance with the provisions of the law and with their competences under the Code of Self-governance shall be responsible for: municipal waste management (including elaboration of municipal waste management plans), pursuant to Article 16 of this Law (exluding the competences pursuant to paragraph 7 of the same Article).
 - q) Construction, operation and closure of non-hazardous waste landfills within the administrative borders of Autonomous Republic of Adjara and city of Tbilisi is a competence of the relevant units of Tbilisi Municipality and Autonomous Republic of Adjara.

Article 6 - Observations and Comments

- 1. An extremely important responsibility that must be enhanced if the new Waste Code and resulting national strategy are to be effective will be the <u>enforcement</u> of the requirements that evolve from the new legal framework and follow on development of a regulatory process. Experience in the European Union and the United States has shown that the strength of a regulatory driver is a direct function of the enforcement of specific rules and regulations that compel responsible stakeholders to comply with adopted requirements and standards. While enforcement may be implied in Item 1g above as an element of "state control of waste management" it may be best to more directly identify the enforcement process as a key element of future Ministry responsibility. Further, the Ministry must be prepared to develop the internal technical and economic resources required to effectively monitor and enforce compliance to the new legal framework. (Support Information E.U. Practical manual on permitting and inspection of waste management operations 22 December 2011 and E.U. Guidance on permitting and inspection of waste management operations 19 January 2012)
- 2. Item 4 relates to the management of animal wastes. Based on the proposed hierarchy of solid waste management choices, the management of this material should include a strong consideration of the utilization of animal wastes as a source of biogas for power generation

or compost. Proposed Sub-laws related to waste combustion should clarify the relationship of anaerobic digestion processes for generation of biogas and subsequent power generation to conventional incineration and waste-to-energy processes. This may be warranted to not impede the consideration of this effective means for treating animal waste particularly from agribusiness sources.

- 3. Item 7 of this article states that the MRDI shall be responsible for the construction operation and closure of non-hazardous waste landfills as well as transfer stations but that this can be transferred to a third person including municipalities if decided by the government. Potential responsibility for the regional disposal sites and transfer stations by the municipalities may include the use of private-sector contractors for operations and maintenance. If this is to occur, modifications to the national procurement laws may be warranted to facilitate the private-sector role.
- 4. The means for achieving the "polluter pays" principle as it relates to the capital and operational costs of the regional landfills and transfer stations may lead to the assessment of a "tipping fee" for use of these facilities. The use of "tipping fees" that cover the costs of operating and maintaining effective landfills (along with providing some coverage of Post closure care) may be important in fulfilling the polluter pays" principle of the new legal framework" since a per ton charge paid by the municipalities may provide an enhanced economic driver for recovery processes.

Article 7 General waste management requirements

- (1) Waste, depending on its type, properties and composition, shall be collected, transported and treated in a manner not impeding its further recovery.
- r) Waste shall be collected, transported and treated in a manner which excludes, to the maximum extent possible, pollution of the environment and risks for human health.
- s) In case of waste pollution caused by waste transport activities, the waste transporter shall be responsible for taking clean up measures.
- t) The producer and holder of waste is obliged to treat their waste on their own or hand it over for collection, transport and treatment to persons entitled to carry out such operations in accordance with this Law and legislation of Georgia.
- u) Where waste has been submitted for recovery or disposal, the original producer's and/ or holder's responsibility shall remain until recovery or disposal is completed.
- v) Persons who collect and transport waste shall hand it over for treatment to appropriate facilities, holding the relevant permit or registration.
- w) Transporters of hazardous waste require an allowance certificate for waste transporting vehicle before they carry out hazardous waste transport activities. A driver of waste transporting vehicle shall have the allowance certificate with him when transporting hazardous waste
- x) The burning of waste outside permitted incinerators shall be prohibited.
- y) The Government shall determine conditions for waste incineration and waste co-incineration in a by-law.

Article 8 Prohibition on littering

- (1) No waste shall be thrown, discarded or abandoned in the environment outside designated waste collection containers or collection facilities.
- (2) The organizer of an event shall be responsible for cleaning up a littered area, if the event leads

- to littering of the environment.
- (3) The municipality in which littering occurs can order a litterer to clean the littered area. If the litterer cannot be ascertained or reached, the municipality may order the owner of the littered area to clean it.
- (4) If a littered area is in the possession of a municipality it shall care of the cleanup of the concerned area itself.

Article 8 - Observations and Comments

1. As previously stated, the definition of "littering" will need to consider the actions of residential and commercial waste generators in rural and village areas not currently served by municipal collection programs. Accordingly, will the responsibility for this "littering" rest with the generators in the rural and inaccessible village areas or with the municipality that has failed to provide effective collection services in those locales?

Article 9 Extended producer responsibility

- (1) The manufacturer of a product, which after its use becomes specific waste, and who places this product on the market, should design the product in a way that ensures:
 - a) reduction of their negative environmental impacts and the generation of waste during manufacturing and subsequent use of products;
 - b) recovery and disposal of the waste from these products.
- (2) The obligation under paragraph 1 may be fulfilled through development, production and placing on the market of products that are suitable for multiple use, that are technically durable and that are, after having become waste, suitable for recovery and safe for disposal in environment.
- (3) The producer of a product that after its use becomes specific waste and who places such product on the market shall be obliged to ensure the separate collection, transport, recycling, recovery and environmentally sound disposal of waste generated by their products.
- (4) The obligation under paragraph 3 shall be implemented individually or collectively by an association of producers.
- (5) The Ministry in cooperation with the Ministry of Economy and Sustainable Development of Georgia and other authorities shall propose for adoption through government detailed obligations on the extended producer responsibility pursuant to paragraph 3 of the present Article.

Article 9 - Observations and Comments

1. The application of Extended Producer Responsibility (EPR) can have significant ISWM benefits by reducing the amount of solid waste generated from consumer products or increasing recycling and reuse potential through redesign of packaging, etc. However, EPR implementation can be a long and rigorous process. Will this be the responsibility of the Ministry under its "promotion of waste prevention, separation, re-use and recycling measures" as stipulated in Article 6? Successful approaches utilized in the E.U. should serve as models for this implementation process as well as defining the probable results that be achieved in the near and long term. The planning process should also include a clear understanding of the economic implications of EPR in determining its application in Georgia. This will likely require a close working relationship between the government and

Georgian manufacturers as part of the EPR implementation process. The ministry should make effective use of the experiences gained in implementing such programs in other countries particular those of you done so within the context of E.U. solid waste management practices.

Article 10 Product charges, subsidies and restrictions

- (1) In order to ensure the achievement of the objectives of this law as set in Article 1 paragraph 2 of this Law, through law it is possible to:
 - a) introduce charges or subsidies on certain products, or,
 - b) exceptionally, prohibit or restrict placement on the market of certain products.
- c) Measures pursuant to paragraph 1 of this Article must be suitable, necessary and proportionate to the objectives of this Law and the specific goal intended to be reached and shall only be taken after hearing of the parties concerned.

Article 10 - Observations and Comments

The experiences in the European Union on such matters should be utilized to determine
the relative impacts of establishing product charges, subsidies and restrictions in Georgia.
It should also be utilized to define the procedures that the government will use to assure
compliance to these requirements.

Chapter III - Waste management planning

Article 11 Waste Management Strategies

- (1) The Ministry shall develop a National Waste Management Strategy in compliance with the requirements of this Law. The Strategy shall set out the policy and the objectives in the field of waste management in Georgia. It will cover a period of 15 years.
- (2) The Ministry shall develop a Strategy on management of biodegradable municipal waste. This strategy shall contain targets and measures for the reduction of the amount of biodegradable municipal waste going to landfill.

Article 11 - Observations and Comments

1. The strategy referenced in Item 1 of Article 11 is intended to define the means by which the objectives of new Waste Code will be achieved. This strategy has to consider the current solid waste management conditions in Georgia related to the status of existing collection services, the characteristics and ongoing improvements of existing official disposal areas and limited market opportunities for recyclables and compost. Accordingly, the strategy will need to define what can be reasonably achieved in the 15 year designated time period in the context of available financial/technical resources that will be required to achieve those results. Accordingly, the strategy will need to be based on a close assessment of existing conditions throughout Georgia including the progress made in improving landfill conditions and the current effectiveness and coverage of solid waste collection programs in George's municipalities. Models for completing these assessments and developing the required initiatives exist as a result of past work in the various E.U. countries as they worked towards complying with the E.U. SWM laws and regulations. The experiences in other countries that have executed similar Association Agreements in recent years will be particularly valuable. The lessons learned from these evaluations and

- the manner in which they were completed should be utilized as a basis for deriving sufficient information to understand the implications of whatever strategy the government of Georgia finally adopts and how to move forward to actual improvements.
- 2. Through exclusion criteria, The Landfill Directives in the European Union preclude the disposal of solid waste materials with biodegradable properties in E.U. landfills as a means of minimizing the generation of landfill gas and its climate change impacts. This may not be a near-term economically viable alternative for Georgia because of its cost implications and the need to improve core services. Future reductions in biodegradable content of landfilled waste can be a function of the viability of alternative processes that inherently reduce the physical impact of biodegradable waste. However, any such alternative process should be subject to a determination of "economic feasibility" as allowed in Article 4 of the new draft code.

Article 12 National Waste Management Action Plan

- (1) In order to achieve the objectives and to comply with the principles established by this Law and the National Waste Management Strategy under Article 11 paragraph 1 of this Law a National Waste Management Action Plan for a period of 5 years shall be adopted by the Government based on the proposal by the Ministry.
- (2) The adoption of the National Waste Management Plan shall be preceded by appropriate public consultations held by the Ministry, involving the relevant stakeholders.
- (3) After its adoption the National Waste Management Action Plan shall be published in an appropriate manner by the Government of Georgia.
- (4) The Ministry shall submit reports on the implementation of the National Waste Management Action Plan to the Government every three years.
- (5) The National Waste Management Plan shall set out the measures to be taken to ensure prevention, improve environmentally sound preparing for re-use, recycling, recovery and disposal of waste.
- (6) The plan shall contain the following:
 - a) the type, quantity and source of waste generated within the territory of Georgia, and an evaluation of the development of waste streams expected in the future;
 - b) available data related to the import and export of waste including forecasts on the waste likely to be shipped from or to the territory of Georgia;
 - c) existing waste collection systems and major disposal and recovery facilities, including for specific waste streams or hazardous waste;
 - d) an assessment of the need for the closure of existing waste treatment facilities, additional waste treatment infrastructure and new collection systems;
 - e) information on the location criteria for site identification and on the capacity of future disposal or recovery facilities;
 - f) the locations for the regional landfills (without determining the exact coordinates of sites);
 - g) planned waste management technologies and methods, including for waste posing specific management problems;
 - h) measures for the prevention of waste and progress indicators for the planning period;
 - i) organisational aspects related to waste management including a description of the allocation of responsibilities between public and private actors carrying out the waste

management;

- j) any existing and planned arrangements for inter-municipality waste collection and waste treatment facilities:
- k) information provision and the use of awareness campaigns;
- l) abandoned and existing contaminated waste disposal facilities and measures for their rehabilitation:
- m) the way and timeframe in which the proposed measures shall be implemented, the responsible person(s) and estimated costs for these waste management measures and sources for financing;
- n) other information considered relevant.
- (7) Action plans on the management of individual waste types such as but not limited to POPs, mercury, healthcare and animal waste, asbestos waste may be adopted additionally. These plans must be in conformity with national waste management plan.

Article 12 - Observations and Comments

- 1. The stipulation that the adoption of the plan will include "appropriate public consultations" as stipulated in Item #2 will be extremely important if the polluter pays principle is to be utilized to achieve optimal cost recovery. Appropriate public consultations should also include public outreach where information is provided so that the public and other waste generators have a better understanding of the implications of improper solid waste management and the benefits to be derived from paying the higher costs for better SWM services, practices and facilities. While Item 3 stipulates that the national waste management action plan will be published in an appropriate manner, information should be provided in a manner that is clearly understood by the public to gain their acceptance of increased costs in whatever manner directly impacts them. As a result, the ministry should undertake a public education process that clearly defines the beneficial results to be achieved through the new legal framework and its subsequent actions.
- 2. Item 4 stipulates that the Ministry will submit reports on the implementation of the action plan every three years. This will be extremely important in providing a means for adjusting the strategy implementation process based on actual experiences gained during reported implementation period. Effective monitoring and data collection processes must be developed to assure that sufficient and correct information is gathered that is relevant to measurement of progress made in achieving the SWM plan. Monitoring and data collections standards and guidance established in the E.U. can serve as a template for designing the Ministry's monitoring and assessment program. (Support Information E.U. Manual on Waste Statistics a Handbook for Data Collection on Waste Generation and Treatment 2013)
- 3. Item 6a requires an assessment of the type, quantity and sources of solid waste generated within the country. This should include any seasonal and regional variations in the solid waste streams from various sources. Consistent with the Government's intent to develop regional landfills that may be initially focused on the configuration of Georgia's formal regions, data should be generated on a regional basis for specific planning and on a national basis for determining progress in meeting the intent of the new waste code and its subsequent strategy. Generating waste stream information at the municipal level will also be important in developing municipal solid waste management plans as also required as a result of the new waste code. Accordingly, the ministry should assure that there is an

effective mechanism for transmitting data and information to responsible stakeholders so that they can monitor their performance under the new legal framework as well as plan for other activities that they may be responsible for the future such as the biodegradable content of solid waste received from various municipalities.

- 4. Item 6b will be important in determining the impact of waste flow into and out of the country. This should include any current or projected transport of recovered commodities out of country to foreign market locations. Conversely, any import of recycled materials to manufacturing facilities in Georgia should be monitored as a component of data-gathering to assess the potential impact of this imported material on local recovery programs in terms of market capacity and pricing.
- 5. Item 6i should include an assessment of the effect of procurement limitations based on the current procurement law.
- 6. While the use of awareness programs should be defined in the proposed National plan, the Ministry should design its own public awareness elements to begin the process of educating people in Georgia concerning the requirements of the new waste code and the benefits to be derived through a general upgrade of SWM facilities and services.

Article 13 Municipal waste management plan

- (1) Each municipality shall adopt a plan for the management of the municipal waste produced within its territory for a period of five years. A Municipal Waste Management Plan may be prepared jointly by neighbouring municipalities.
- o) The Municipal Waste Management Plan shall be compliant with the National Waste Management Plan and other plans under Article 12 paragraph 7 of this Law.
- p) The adoption of the Municipal Waste Management Plan shall be preceded by public consultations, involving the relevant stakeholders and the neighbouring municipalities. These public consultations shall be carried out by the respective municipality(ies).
- q) The Municipal Waste Management Plan shall contain the following:
 - a) information on the existing system for collection of waste from population;
 - b) data on the types and the amounts of non-hazardous waste from population collected, recovered and disposed of;
 - c) data on the types and the amounts of hazardous waste from population collected, recovered and disposed of;
 - d) location of the waste treatment facilities:
 - e) planned measures to be taken for the establishment of separate collection and recovery of municipal waste, including of biodegradable waste and packaging waste;
 - f) planned construction of new waste treatment facilities;
 - g) programmes to raise awareness of the public on waste management issues;
 - h) implemented and planned measures for co-operation with other municipalities in the field of waste management;
 - i) the way and timeframe in which the proposed measures shall be implemented, responsible persons, estimated costs and sources of financing for their implementation.

Article 13 - Observations and Comments

- 1. The required development of municipal SWM plans in accordance with this Article is the basis by which the USAID supported project will assist municipalities in the Kakheti region. The Project will provide assistance to the Kakheti municipalities in helping them develop their initial solid waste management plans based on the criteria presented in this Article. This process will provide a number of test cases for securing and analyzing the information derived for the municipal solid waste stream and programs. The lessons learned during this process may help define the process for developing such plans in other locales.
- 2. Item 4 of this Article should include information concerning the manner by which the municipalities will provide collection services to areas within the municipality that are not currently served by the formal collection program. Alternatively, information could be requested as to how municipalities may assist individual community and villages in inaccessible and rural areas to manage their solid waste through community-based programs that comply with the requirements of the new waste code. This may include the support of community or backyard composting projects or microenterprise collection programs in these unserved areas.
- 3. Items 4b and 4c of this article require that municipalities develop specific information on the types and amounts of hazardous and nonhazardous waste generated in their service areas. In the National strategy and plan, the Ministry should develop the criteria that presents a standardized methodology for deriving this data to assure its completeness and accuracy in local planning and in support of the national database.
- 4. The USAID-supported project anticipates providing capacity building assistance related to the technical and economic aspects of waste treatment facilities and separate collection processes. This will assist Kakheti municipalities to understand the basis and issues associated with such projects so that information required as a result of Items 13e, 13f and 13h will be based on gained knowledge that is consistent with the design intent of the new waste code and subsequent national strategy and plan (and also consistent with the requirements and experiences in the E.U.

Article 14 Company waste management plan

- (1) Legal and natural persons that produce more than 200 tonnes of non-hazardous waste or 5 tonnes of hazardous or 1 000 tonnes of inert waste annually, shall prepare a company waste management plan, which contains in particular the following:
 - a) information about waste generated (origin, types of waste according to the list of waste, composition, quantity);
 - b) measures to be taken for the prevention of waste generation and its recovery, especially in the case of hazardous waste;
 - c) a description of the applied method for separation of the waste generated, in particular of hazardous waste from the other waste;
 - d) methods and conditions for the temporary storage of waste;
 - e) waste treatment methods applied and/or information about the person to whom the waste is handed over for further treatment.
- f) The company waste management plan shall be submitted to the Ministry. It shall be made available to the municipalities concerned and others, upon their request.

g) The company waste management plan shall be updated every 3 years or when there is a substantial change in waste treatment operations or in the types and quantities of waste generated.

Article 14 - Observations and Comments

- Given the importance of properly managing all hazardous waste, a manifest system should be required that provides a means for developing documentation that tracks the manner by which hazardous waste is managed from its point of origin (and classification) to final treatment and/or disposal. The Ministry should dedicate sufficient staff resources and develop the technical capacity necessary to assure that the classification process is properly implemented by waste generators.
- 2. Rigid enforcement of the rules and regulations pertaining to hazardous waste classification and management is critical to protect public health and the environment as well as to protect treatment facility and landfill operators from exposure to hazardous waste if this material is improperly classified as a nonhazardous waste and shipped to non-hazardous waste facilities. (In developing the regional landfills, operating staff should be trained to identify and isolate potentially hazardous waste that may be received as nonhazardous waste as a result of improper characterization by waste generators.

Article 15 Environmental manager

- (1) The persons under Article 14 paragraph 1 of this Law shall nominate a suitable person as a company environmental manager. Information about such nomination shall be given to the Ministry (indicating the name and surname of the manager) without a delay.
- (2) The waste related tasks of the environmental manager shall be the following:
 - a) to draft and update the waste management plan of the company;
 - b) to organise implementation of the waste management plan;
 - c) to supervise internal compliance with legal requirements on waste management.
- d) The responsibility of the environmental manager does not limit the liability of the entrepreneur for complying with relevant waste management requirements as prescribed by this law and its by-laws.

Article 15 - Observations and Comments

1. While item 3 of this Article <u>does not remove</u> the liability of a "company" or entrepreneur for complying with the requirements for managing their hazardous and nonhazardous waste, the new waste code (or the sub law related to the classification and management of hazardous waste) should also stipulate the individual liability (and potential penalties) for the individuals who are responsible for administering a company's actions related to management of their hazardous waste. This will help assure effective company performance.

Chapter IV - Management of municipal waste

Article 16 Collection and treatment of municipal waste

- (1) Municipalities shall provide for:
 - a) municipal waste collection, establishment of collection system for this purpose and

- ensuring proper functioning of such system;
- b) the gradual introduction and operation of waste collection systems for separate collection of municipal waste.
- c) Waste producers generating municipal waste are obliged to make their waste generated available to the municipal waste collection service, if such system exists.
- d) Waste producers other than population generating municipal waste may be exempted from using the municipal waste collection service if they hand over the waste generated on their premises for collection and treatment to persons who possess an authorisation to conduct such services. In such case the waste producer shall notify the relevant municipality beforehand.
- e) When a separate waste collection system is introduced on the territory of a municipality, producers of municipal waste are obliged to use the system.
- f) Municipal waste shall be collected and treated according to a rule on municipal waste collection and treatment services.
- g) The municipalities are entitled to create, implement and manage a joint municipal waste management system.
- h) A person who implements waste collection, transportation and/or treatment activities shall possess the necessary permit or registration as required pursuant to the provisions in Chapter VII of this Law.

Article 16 - Observations and Comments

- 1. Item 1b of this Article stipulates the gradual introduction and operation of separate collection for specific components of the solid waste stream. The economic viability of separate collection will be a function of available consolidation and processing facilities or markets for materials that are collected through the separate collection process. In developing the National strategy and plan, the Ministry should undertake a detailed market assessment for recycled materials and compost to determine the strength and adequacy of existing markets for materials that could be collected through separate collection. This will help to define the "economic viability" of the separate collection process or to define the need for helping increase the capacity of possible outlets to support the separate collection process. Further, it could also help to define mechanisms for increasing the effectiveness of markets in support of the intent of the new waste code.
- 2. Item 6 allows consideration of regional municipal SWM facilities and services. This will likely enhance the attractiveness of private sector participation in municipal SWM programs. However, the limitations created by the current conditions of the National Procurement Law (where individual municipalities in a regional system is required to annually undertake a tender process for any contracted service) may limit the interest pf private sector companies.
- 3. Item 7 of this Article requires that any "person" who implements waste collection, transportation and/or treatment activities shall have the necessary permit or registration. The means for monitoring and enforcing this requirement must exist to occur particularly as it relates to actions by the informal sector in capturing materials within the collection system. (Another factor that is important in the consideration of the informal sector is that the informal recycling process could compete with formal treatment facilities thereby affecting their economic viability.) This will require that the Ministry have sufficient means for monitoring and enforcing compliance to this condition.

Chapter V - Management of hazardous waste

Article 17 General obligations for hazardous waste management

- (1) The production, collection and transportation of hazardous waste, as well as its storage and treatment, shall be carried out in conditions providing protection for the environment and human health.
- (2) It shall be prohibited to
 - a) discard hazardous waste outside waste collection containers;
 - b) discharge it into the sewerage systems or underground or surface waters, including the sea;
 - c) burn it outside waste incinerators permitted for that purpose;
 - d) treat it outside waste treatment facilities permitted to treat such type of waste.
- (3) Population shall be obliged to discard municipal hazardous waste generated by them only in special containers provided by the municipalities for that purpose, if such separate collection system exists.

Article 17 - Observations and Comments

- 1. The means for monitoring and enforcing the manner by which hazardous waste is classified and managed must be an important element of the sub-law that relates specifically to hazardous waste. Responsibility for monitoring and enforcement should be clearly defined within the Ministry's program. The hazardous waste management process defined by the anticipated sub-law should include a clear, distinct means for properly identifying and classifying hazardous waste and assuring that the hazardous waste generators have ongoing responsibility for assuring that its full management cycle from generation to final treatment or disposal is accomplished in accordance with the new waste code.
- The fines and penalties imposed on hazardous waste generators that do not comply to the anticipated sub law on hazardous waste must be sufficient to assure that it is in the generators economic best interest to fully comply with the stipulated requirements created through the new legal framework.

Article 18 Special obligations for hazardous waste management

- (1) Waste producers that produce more than 2 tons of hazardous waste per year shall
 - a) create and implement a suitable separation and collection system for such waste;
 - b) designate an environmental manager, pursuant to Article 15 of this Law, responsible to make arrangements for the safe management of said waste;
 - c) make arrangements for briefing and training for staff handling hazardous waste.
- d) Untill the exact content of waste is unknown, the waste shall be regarded as hazardous.
- e) Hazardous waste for which no appropriate treatment techniques and/or technologies are available in accordance with the requirements of this Law within the territory of Georgia shall be exported for treatment. Untill the export is carried out, the waste shall be safely stored at temporary storage facilities.
- (4) In cases determined by paragraph 3, the Ministry may exceptionally once allow for an extended storage period of up to one year if this is justified and does not harm human health or the environment.

- f) Hazardous waste may only be collected and transported by a natural or legal person after its registration pursuant to this Law.
- g) Hazardous waste shall be transported in compliance with the sublaws in Article 17 paragraph 1 of this Law and Article 6 paragraph 6 of this Law.

Article 18 - Observations and Comments

1. Item 3 of this Article allows the export of hazardous waste if there are no appropriate treatment or disposal means in Georgia. However, export should only be allowed if the hazardous waste is delivered to a processing or disposal facility that is in compliance with effective practice standards for managing such materials and in compliance with the laws and regulations that exist in the country where the material is exported to. This should be a stipulated requirement of the proposed sub-law.

Article 19 Prohibition of mixing hazardous waste with other waste

- (1) It is prohibited to mix hazardous waste with other types of hazardous waste or with other waste, substances or materials (except for the cases determined by Article 17, paragraph 3 of this law). Mixing includes the dilution of hazardous substances.
- (2) In exemption from paragraph 1 of this Article the mixing of hazardous waste shall only be allowed by prior written consent issued by the Ministry, if it is requested by an operator and mixing does not entail a risk to human health and the environment.

Article 19 - Observations and Comments

1. Item 2 implies that a generator is allowed to mix small quantities of hazardous waste with larger quantities of nonhazardous material so as to render the mixture nonhazardous in accordance with the classification criteria adopted as a result of the new waste code. If such mixing is allowed, the means by which the potentially hazardous waste is handled should be clearly defined to assure that the process does not entail an unreasonable risk to human health and the environment or create an unsafe condition for individuals responsible for managing these materials at the generation locale. In the United States, the mixing process can only occur without any manual contact with the hazardous waste component to accomplish the mixing process and allow classification of the composite waste stream. If this is allowed, the manner by which it is accomplished should be defined in detail.

Article 20 Special requirements for hazardous waste collection and treatment

- (1) Special requirements for hazardous waste collection and treatment shall be defined by the relevant acts of Government.
- (2) Acts under the first paragraph of this article, along with other requirements shall determine:
 - a) traceability mechanisms from generation untill the final disposal of hazardous waste;
 - b) packaging and labeling requirements for hazardous waste;
 - c) requirements for temporary storage facility of hazardous waste;
 - d) requirements of the waste persistent organic pollutants;e) Requirements for hazardous wastes such as waste oils, asbestos and etc.

Article 20 - Observations and Comments

 Final definition of these special requirements for hazardous waste collection and treatment should be as specific as possible for the various categories of hazardous waste that may be generated in Georgia. These requirements should be based on the experience gained in managing similar materials in other countries with well-developed hazardous waste management rules particularly those that have complied with applicable E.U. standards.

Chapter VI - Landfills

Article 21 Landfill categories

- (1) The following landfill categories shall exist:
 - a) landfill for hazardous waste,
 - b) landfill for non-hazardous waste,
 - c) landfill for inert waste.
- d) Hazardous waste may only be assigned to a hazardous waste landfill.
- e) Landfills for non-hazardous waste may only be used for municipal waste or non-hazardous waste of any other origin only if they fulfil the waste acceptance criteria for this landfill category in accordance with the by-law on landfill of waste pursuant to Article 22 of this Law.
- f) The operator of a landfill for non-hazardous waste is obliged to accept municipal waste generated within the territory of a municipality, including those municipal waste which is generated by waste producers determined in Article 16 paragraph 3 of this Law.
- g) Inert waste landfills shall only be used for inert waste. Inert waste which is suitable for backfilling or for construction purposes does not require to be landfilled. Details shall be regulated by the Ministry through a by-law pursuant to Article 22 paragraph 1 of this Law.
- h) On permitted landfills only treated waste may be landfilled. This provision may not apply to inert waste for which treatment is not technically feasible, nor to any other waste for which such treatment does not contribute to the objective of this Law.

Article 21 - Observations and Comments

- 1. The development of new regional landfills for nonhazardous municipal and other solid waste will, most likely, lead to higher disposal costs. The means for cost recovery or deriving other sources of funds in order to sustain the function of the new regional landfills must be considered in SWM planning both at the national and municipal levels. Regionalization will help to create an economy of scale that will benefit the municipalities utilizing the regional sites by helping to reduce costs. However, the cost associated with sound practice landfills will be higher than those that have been experienced through disposal at the dumping sites. This may lead to the need to charge "tipping fees" for disposal at the regional landfills based on the actual amount of material delivered to the disposal sites. New or increased tipping fees paid by the municipalities can help to provide an economic driver for local recycling and composting initiatives to reduce the amount of waste requiring disposal. Any consideration that regional municipalities will assume responsibility for new landfills should include a definition of the necessary institutional processes to achieve regional administration of such facilities including: operational budgeting, setting tipping fees for cost recovery, etc.
- 2. Through enforcement of anticipated hazardous waste regulations, there will be a need to

- treatment and disposal facilities that are capable of managing this classification of waste. Since such facilities do not exist in Georgia, the government should support (or even initiate) any activity aimed at creating hazardous waste treatment and/or disposal facilities within Georgia.
- 3. Item 6 of this Article requires that "only treated waste may be landfilled". The E.U. Landfill Directive defines what is" treated" waste that can be placed in landfills. This needs to be clearly defined in Georgia in accordance to the criteria of the E.U. Landfill Directive as stipulated in the Association Agreement. The treatment of municipal solid waste prior to disposal can significantly add to overall SWM costs experienced by solid waste generators. This will be an important consideration for municipalities that may be responsible for providing treatment or paying a gate fee at facilities that provide both the treatment and disposal functions. It may also be a factor in developing cost recovery programs to fulfill the polluter pays principle of the new legal framework.

Article 22 Requirements for the construction, operation, closure and aftercare of the landfills of waste

- (1) The Government shall determine through a by-law on construction, operation, closure and aftercare of landfills of waste in particular the following:
 - a) technical and other requirements for the construction of a landfill;
 - b) technical and other requirements for operation of landfills, including the monitoring and application of the criteria for acceptance of the waste at the different categories of landfills;
 - c) technical and other requirements for the closure and after-care which cannot be less than 30 years following the closure of the landfill;
 - d) the conditions and the measures that shall be undertaken by the landfill operators, related to prevention of the health hazards and environmental damages;
- e) Waste which does not fulfil the acceptance criteria determined in accordance with the by-law under paragraph 1 of this Article shall not be accepted in a landfill.

Article 22 - Observations and Comments

1. The proposed Sub-law on landfills should be specific as possible to define what is required for developing new landfills or expanding the existing landfills now under the control of the Solid Waste Management Company of Georgia. The cost implications of adopted design, operational and post closure care requirements defined in the landfill sub-law need to be closely considered so that the means for deriving sufficient funds for sustaining the function of new operational landfills are assured. Tipping fees at the new regional landfills should include a component to create a fund for future post-closure care as a means of cost recovery. Alternatively, the government will need to provide sufficient funds after closure to support post closure care requirements. While these cost assurance processes have been successfully achieved in the countries of the European Union, developing a sufficient similar cost assurance process in Georgia may be problematic in the near term given the current state of SWM functions in the country and the ability of waste generators (particularly residential generators) to bear the increased SWM costs that municipalities may have to bear in supporting the E.U. standard landfills.

Article 23 Existing Landfills

(1) After entry into force of this Law an existing landfill may only be operated if it has a valid

- permit under Law on Enivronmental Impact Permit of Georgia or if the Ministry agrees with a conditioning plan of a landfill and agrees upon future operation of the landfill in accordance with the mentioned conditioning plan.
- (2) The operator of a landfill which does not have a permit issued under the Law on Environmental Impact Permit of Georgia when this Law enters into force, shall address the Ministry to agree upon future operation of the landfill, no later than one year after this law enters into force. For the mentioned agreement, the operator shall submit
 - A conditioning plan of a landfill, which shall include risk assessment of adverse impacts on environment, measures reducing the impact of the activities on the environment, timeframes for taking such measures, measures for closure and aftercare of the landfill.
 - f) The Ministry will discuss the documents submitted by the operator and will carry out the following decision:
 - a) an existing landfill poses serious risk for environment and human health, which cannot be prevented by the operator. Such landfills shall be closed not later than 3 years after the entry into force of this Law. The landfills for which a conditioning plan is not submitted to the Ministry shall be closed within the same timeframe.
 - b) an existing landfill, which does not pose a serious risk for environment and human health, that cannot be brought in compliance with this Law and by-laws adopted therein shall operate under conditions determined by the Ministry. Such landfill shall be closed not later than 8 years after the entry into force of a governmental by-law on Construction, Operation, Closure and Aftercare of Landfills.
 - c) an existing landfill that can be brought in compliance with this Law and by-laws adopted can be authorized to operate for the requested period.

Article 23 - Observations and Comments

- 1. As previously emphasized, the proposed national strategy and plan (and the resulting municipal solid waste plans) will need to consider the extensive number of informal dumpsites that exist in areas with no or limited collection services. The Municipal Solid Waste Management Plan criteria presented in Article 13 should include the need to include identification and closure/remediation of these informal sites.
- 2. The risk based assessment of existing landfills as an element of preparing them for future use should consider the manner by which risk is measured. The criteria currently in use in the E.U. for risk based analysis should be explicitly adopted.

Chapter VII – Permitting and registration of waste management activities

Article 24 Waste treatment activities subject to ecological expertise

- (1) According to procedures on the Law on EIA permit the following activities are subject to ecological expertise:
 - a) recovery of waste, except for pre-treatment of non-hazardous waste;
 - b) disposal of waste, except for pre-treatment of non-hazardous waste
 - c) pre-treatment of hazardous waste,
 - d) temporary storage facility of hazardous waste exceeding a maximum construction capacity

of 10 tonnes.

- e) The list of documents and reqirements of the content of this documents to be submitted at the Ministry for the activities envisaged under paragraph 1 is definied by the present Law, Georgian Law on EIA and by the sublaws developed on the basis of these laws
- f) A permit may address more than one of the activities listed above if it is carried out by the same person.

Article 25 Information to be submitted in order to receive permit for waste treatment

In addition to the information required by the Law on Environmental Impact Permit of Georgia and the secondary legislation adopted therein, in relation to waste treatment the following additional information shall be submitted to the Ministry:

- a) type of waste (waste code and name according to the by-law pursuant to Article 2 paragraph 3 of this Law);
- b) quantity and origin of waste to be treated;
- c) description and the codes of the waste treatment operations under Annex I or II;
- d) the means and equipment that will be used, as well as the capacity thereof;
- e) information on the landfill to be constructed, in accordance with legislation.

Article 25 - Observations and Comments

1. The information to be received from prospective permitees should include a description of their technical and financial capacity. The Ministry may want to consider establishing minimum requirements for technical and financial capacity in defining permit requirements. Experience and education of individuals provided by prospective permittees as an indication of technical capacity should also be based on an assurance that the person who meets the technical capacity requirement is not replaced except by an individual with equal or better qualifications.

Article 26 Registration of waste management activities

- (1) The following activities may only be carried out on the basis of a prior registration:
 - a) Collection and/or transport of waste;
 - b) Construction and operation of temporary storage facilities for non-hazardous waste with a capacity of more than 50 tonnes;
 - c) pre-treatment of non-hazardous waste;
 - d) Construction and operation of temporary storage facilities for hazardous waste with a capacity of no less than 2 tonnes and no more than 10 tonnes;
 - e) Construction and operation of waste transfer stations.
- (2) The registration shall be issued only to persons registered as merchants within the meaning of the Law on Entrepreneurship, to state-owned and municipality-owned enterprises and associations (unions) of municipalities.
- (3) Details of the registration of waste collection, transportation, pre-treatment and temporary storage, shall be defined through a governmental by-law by.

Article 26 - Observations and Comments

1. In providing SWM in villages and rural areas where collection services are not currently provided, there may be opportunity for micro-enterprise provision of collection and transport services to carry waste to collection points in the formal municipal collection systems. If these community based service providers or organizations are required to be registered as merchants as required in this article, the means of monitoring and enforcing this requirement will need to be considered? This will also require registration of all metal collection depots and itinerant mobile collectors observed in Georgian municipalities. Since the requirement will also make all informal recyclers illegal unless registered, the social implications may need to be considered.

Article 27 Register of permits and registrations

The permits and registrations issued under this Law shall be recorded in the Waste Management Data Base pursuant to Article 30 of this Law.

Chapter VIII - Trans-boundary movement of waste

Article 28 Trans-boundary movement of waste

The import, export and transit (trans-boundary movement)of waste on the territory of Georgia shall be regulated taking into account the requirements and procedures of the Law on transit and import of waste on the territory of Georgia and the Basel Convention on the control of trans-boundary movements of hazardous wastes and their disposal.

Chapter IX – Record keeping, reporting and waste management database

Article 29 Obligations for keeping records and reporting on waste

- (1) Records on waste shall be kept and waste reports shall be submitted to the Ministry by natural and legal persons:
 - a) dealing professionally with collection, transport and/or treatment of waste;
 - b) which produced more than 200 kg hazardous waste and/or more than 2 tones non-hazardous (excluding municipal waste) waste per year.
- (2) Natural and legal persons shall keep the data of the records referred to in paragraph 1 of this Article for 3 years, except landfill operators which are obliged to keep the data of the records until the end of the period designated for operation of the landfill as well as during the phase of further care after the closure of the landfill.
- (3) The obligation for record keeping and reporting does not apply to the population.
- (4) The Government of Georgia determines the form and the content of the records and reports to be prepared, through a by-law.

Article 29 - Observations and Comments

1. The design of the new regional landfills proposed throughout Georgia should include the installation of weighbridges to monitor the amount (by weight) of solid waste materials received at the sites. Minimum standards for design and calibration of these systems

should be considered as a component of certifying the operations at the sites to assure the accuracy of information derived through the weighbridges. The critical aspect of using weigh data for tipping fee billing purposes further warrants the scale certification process to assure accuracy. The data collected from all registered landfill sites should include the weight of all material transported from the landfill sites (recyclables, rejected materials, etc.) as well as solid waste received which should also include any cover material utilized in landfill operations.

Article 30 Waste Data Base

The Ministry shall keep and update a data base, which includes:

- a) information determined by Article 29 of this Law;
- b) information about the persons that received permits under Article 24;
- c) information about the persons that received registration under Article 26.

Article 30 - Observations and Comments

1. This is an extremely important requirement since the development of an effective database will be important for future planning as well as for monitoring progress in improving SWM conditions and performance. To the degree possible, the database should include information on solid waste generated from individual municipalities. This information will provide a basis for local planning by municipal officials in addition to allowing the Ministry to monitor their progress in meeting the objectives of the new waste code. The availability and use of weighbridge data from regional landfills will be important to municipalities in determining the amount of material that they actually collect as well as the progress that they make in achieving waste diversion objectives.

Chapter X

Administrative violations and Proceedings

Article 31. Throwing, discarding and/or abandoning municipal waste in the environment

- 1. Throwing, discarding and/or abandoning municipal waste up to 2 kg in the environment will result in a fine of $20\,\mathrm{GEL}$
- 2.The same action (committed) from living houses or other buildings will result in a fine of 30 GEL.
- 3. Same action committed from a vehicle will result in fining a driver of the vehicle and in case of public transport the violator the fine amounts to 40 GEL.
- 4. Throwing, discarding and/or abandoning more than 2 kg of the municipal waste in the environment (except for the case determined by paragraph 5 of this Article) will result in a fine of 100 GEL for natural person and 400 GEL for legal person.
- 5. Throwing, discarding and/or abandoning more than 1 m³ of the municipal waste in the environment will result in a fine of 200 GEL for natural person and 1000 GEL for legal person.
- 6. Throwing, discarding and/or abandoning up to 2 kg of batteries, accumulators, electric bulbs, electric equipment, graphite electrodes, as well as sharp items, including glass fragments, nails and

other similar waste – will result in a fine of 100 GEL.

7. Throwing, discarding and/or abandoning bulk waste (including motor vehicles, electric and electronic equipment, construction equipment and other similar equipment) in the environment – will result in a fine of 800 GEL.

Note: In order to qualify as bulk waste pursuant to paragraph 7, the size of waste shall be more than 2 m^2 .

- 8. Throwing, discarding and/or abandoning up to 5 tyres in the environment will result in a fine of 50 GEL.
- 9. Throwing, discarding and/or abandoning 5 or more tyres in the environment will result in a fine of 200-800 GEL.

Note: If in case of throwing household waste from a vehicle (exceot for public transport) on a road the Protocol on Administrative Offence (receipt for a fine) is not formed at the place of violation by the police or a local authority or administrative fine has not been imposed and the violation is detected on a video and/or photo tape, the fine determined by Paragraph 1 of this Article will be imposed on the owner of the motor vehicle. The Decision on imposing the administrative fine will be sent to the latter to the registered address.

Article 32. Throwing, discarding and/or abandoning construction or other inert waste in the environment

- 1. Throwing, discarding and/or abandoning 1 m³ of construction or other inert waste in the environment will result in a fine of 100 GEL for a natural person and 500 GEL for a legal person.
- 2. Throwing, discarding and/or abandoning more than 1 m³ of construction and other inert waste in the environment will result in a fine of 200 GEL for natural person and 1000 GEL for legal person.

Article 33. Polluting environment with sludge waste – fecal matter or sewage waste

- 1. Polluting a territory with fecal matter of a dog or other domestic animal in small amounts will result in a fine of 20 GEL.
- 2. Polluting a territory with fecal matter or sewage waste up to 1 m^3 will result in a fine of 100 GEL for a natural person and 500 GEL for a legal person.
- 3. Polluting a territory with more than 1 m³ of fecal matter or sewage waste will result in a fine of 500 GEL for a natural person and 2000 GEL for a legal person.

Note: Paragraph 1 of this article does not apply to villages and Dabas [small settlements] (including those within the borders of Tbilisi and other cities) and the actions performed there.

Article 34. Throwing, discarding and/or abandoning parts of animal bodies

- 1. Throwing, discarding and/or abandoning parts of animals up to $20~\rm kg$ (including from slaughterhouses) will result in a fine of $100~\rm GEL$ for a natural person and $500~\rm GEL$ for a legal person.
- 2. Throwing, discarding and/or abandoning more than 20 kg of parts of animals will result in a fine of 200 GEL for a natural person and 1000 GEL for a legal person.

Article 35. Burning nonhazardous waste outside permitted incinerators

Burning non-hazardous municipal waste (including leaves, tyres, rubber and other elastomeric materials) outside permitted incinerators – will result in a fine of 100-500 GEL.

Article 36. Violation of requirements and obligations for hazardous waste management

- 1. Discarding hazardous waste into sewage system or surface or underground water bodies will result in a fine of 400 GEL for a natural person and 1000 GEL for a legal person.
- 2. Throwing, discarding, abandoning, etc. of hazardous waste outside waste collection containers will result in a fine of 400 GEL for a natural person and 1000 GEL for a legal person.
- 3. Incinerating hazardous waste outside an incinerator holding a relevant permit will result in a fine of 500 GEL for a natural person and 1500 GEL for a legal person.
- 4. Treatment of hazardous waste outside a waste treatment facility holding a relevant permit will result in a fine of 500 GEL for a natural person and 1500 GEL for a legal person.

Article 37. Polluting of environment or littering while transporting waste

- 1. Causing pollution or littering of environment with non-hazardous waste while transporting the waste will result in a fine of 50-200 GEL for a natural person and 100-500 GEL for legal person.
- 2. Causing pollution or littering of environment with hazardous waste while transporting the waste will result in a fine of 200-300 GEL for a natural person and 500-800 GEL for a legal person.

Article 38. Transporting waste without having obtained an allowance certificate for a vehicle

Transporting waste without having obtained an allowance certificate for a vehicle – will result in a fine of 200 GEL.

Article 39. Mixing hazardous waste with other waste

- 1. Mixing up to 20 kg of hazardous waste with other waste, substances or materials, without prior consent of the Ministry will result in a fine of 200 GEL for a natural person and 300 GEL for a legal person.
- 2. Mixing more than 20 kg of hazardous waste with other waste, substances or materials, without prior consent of the Ministry will result in a fine of 300-800 GEL for a natural person and 1000-2000 GEL for a legal person.

Article 40. Violation of registration requirements for collection, transportation, pre-treatment and temporary storage of waste

- 1. Collection and transportation of waste without relevant registration will result in a fine of 1000 GEL.
- 2. Construction and operation of a pre-treatment facility for non-hazardous waste, without relevant registration will result in a fine of 2000 GEL.
- 3. Construction and operation of a temporary storage facility for hazardous waste with capacity of 2-10 tons a year, without relevant registration will result in a fine of 2000.
- 4. Construction and operation of waste transfer stations without relevant registration will result in a fine of 2000 GEL.
- 5. Violation of the registration conditions, determined pursuant to this Law will result in a fine of 1000 GEL.

Article 41. Violation of the terms and conditions of the operation of existing landfills

Violation of the terms and conditions determined for the operation of existing landfills pursuant to

this Law – will result in a fine of 3000 GEL.

Article 42. Violation of the requirement of appointing an environmental manager and notifying to the Ministry

Failure to appoint environmental manager and notifying the person to the Ministry – will result in a fine of 200 GEL.

Article 43. Violation of the requirement of submitting a company waste management plan

- 1. Failure to submit the company waste management plan on time will result in a fine of 200 GEL.
- 2. Failure to submit the company waste management plan to a municipality, in case of a demand will result in a fine of 200 GEL.

Article 44. Violation of reporting and record keeping obligations

Violation of reporting and record keeping obligations – will result in a fine of 200 GEL.

Article 45. Violation of the special obligations of hazardous waste management

- 1. Failure to establish separation and collection system for hazardous waste will result in a fine of 200-1000 GEL.
- 2. Failure to make arrangements for briefing and training for staff handling hazardous waste will result in a fine of 200 GEL.

Article 46. Not complying with the requirements of the Authorities determined by Article 47 that are authorized to form an Administrative Offence Protocol

- 1. After performing a violation determined by this Law, failure to comply on time with the requirement of a relevant authority set in a protocol about elimination of the violation will result in imposing an administrative fine, in an amount determined by a relevant article of this Law, for violation of which a person was requested to eliminate the offence.
- 2. Obstruction of the enforcement authorities authorized to form an Administrative Offence Protocol pursuant to this Law from performing their rights and duties will result in a fine of 5000 GEL.
- 3. Failure to comply with lawful requests of the enforcement authorities authorized to form an Administrative Offence Protocol pursuant to this Law (refusing to pass documents, material and information, refusing to ensure representation during inspection) will result in a fine of 500 GEL.

Article 47. Administrative proceedings

- 1. The procedure for establishing of violations and imposing fines under this Law is determined by this Law and the Administrative Offence Code of Georgia.
- 2. In case of repeated violations pursuant to articles from 31 to 46, the amount of respective fine is doubled.
- 3. In case of violation of permit conditions provisions of the Law of Georgia on Licences and Permits and the Administrative Offence Code of Georgia shall apply.
- 4. The fact that the offender has paid the fine for the violation under this Chapter does not release him or her from the obligation to cover the cost for reimbursement of damage to the environment.
- 5. An Administrative Offence Protocol for violations under Article 31, , 32, 36, 39, 42, 43 paragraph 1, Articles 44-46 shall be formed by competent person of the Environmental Control

Department of the Ministry.

- 6. An Administrative Offence Protocol for violations under Articles 31, 32, 33, 34, 36 paragraph 2, Article 37, 38 and 40 paragraph 1 shall be formed by competent authority of the Ministry of Internal Affairs of Georgia.
- 7. An Administrative Offence Protocol for violations under Articles 31, 35, 36 paragraph 1 and 2, article 39 and 43 paragraph 2 shall be formed by the competent person of the local self-government authority.
- 8. Administrative offence cases, under articles 31-46 shall be heard at Regional (City) Court.
- 9. The competent persons of the Environmental Control Department of the Ministry are entitled to discuss and sanction the administrative offence cases under Article 31, paragraph 1, 2, 4 and 9, Articles 32, 36, 39, 42, 43 paragraph 1, Articles 44- 46.
- 10. Competent authority of the Ministry of Internal Affairs of Georgia is entitled to discuss and sanction the administrative offence cases under Article 31, 32, 33, 34, 36 paragraph 2, 37, 38 and 40 paragraph 1.
- 11. Competent authority of the local self-government is entitled to discuss and sanction the administrative offence cases under Article 31, 35, 36 paragraph 1 and 2, Article 39 and 43 paragraph 2.
- 12. When an administrative offence determined by this Law is committed and the offence does not require further administrative investigation, a person authorized to form an Administrative Offence Protocol shall discuss the administrative offence case and determine the administrative sanction on the spot.
- 13. In cases under paragraph 12 of this Article, the fine is not payable on the spot and a fine bill is issued, which at the same time is an Administrative Offence Protocol.
- 14. Form and procedure for filling in, delivering and handing in the fine bill under paragraph 13 of this Article is determined by a respective by-law of the Ministry of Environment and Natural Resources Protection of Georgia, the Ministry of Internal Affairs of Georgia or an authority of a local self-government.
- 15. An Administrative Offence Protocol about an administrative offence determined under this Law may be appealed in court by the offender.

Chapter XI Transitional and Closing Provisions

Article 48. Transitional Provisions in relation with entry into force of this Law

- 1. The Waste Management Strategy pursuant to Article 11 paragraph 1 and National Waste Management Plan pursuant to Article 12 paragraph 1, shall be adopted not later than one year after the entry into force of this Law.
- 2. The Ministry shall elaborate strategy for reduction of the amount of biodegradable municipal waste going to landfill pursuant to Article 11 paragraph 2, no later than 6 years after entry into force of this Law.
- 3. Each municipality shall adopt a municipal waste management plan pursuant to Article 13 of this Law no later 2 years after adoption of the national waste management plan pursuant to Article

12 of this Law.

- 4. A company waste management plan pursuant to Article 14 paragraph 1 of this Law shall be elaborated no later than 2 years after entry into force of this Law.
- 5. The requirement to nominate a company environmental manager pursuant to Article 15 paragraph 1 of this Law shall become mandatory no later than 1 year after the entry into force of this Law.
- 6. The requirement to obtain a waste transport allowance certificate pursuant to Article 7 paragraph 7 of this Law and Article 38 of this law shall be applicable one year of the adoption of a sub-law pursuant to Article 49 paragraph 3 of this Law.
- 7. Article 16, paragraph 1 sub-paragraph (b) of this Law enters into force 3 years after entry into force of a sub-law pursuant to Article 49 paragraph 1, sub-paragraph (b) of this Law.
- 8. The registration requirements pursuant to Article 16 paragraph 7 of this Law shall become mandatory no later than 2 years after the entry into force of a by-law pursuant to Article 26 paragraph 3 of this Law.
- 9. Article 18 paragraph 1 sub-paragraph (a) and Article 45 of this Law shall become mandatory no later than 1 year after entry into force of a by-law pursuant to Article 49 paragraph 7 of this Law.
- 10. Articles 26 and 40 of this Law enter into force no later than 2 years after adoption of a by-law pursuant to Article 49 paragraph 1, sub-paragraph (d) of this Law.
- 11. Articles 29, 30 and 44 of this Law enter into force no later than 1 year after adoption of a by-law pursuant to Article 49 paragraph 1, sub-paragraph (e) of this Law.
- 12. Article 9, paragraphs 3 and 4 of this Law enter into force in stages, upon entry into force of a by-law pursuant to Article 49, paragraph 3 of this Law.

Article 48 - Observations and Comments

1. If the new waste code comes into effect in the near future, the timing of work that the Project will undertake with the Kakheti municipalities helping them to develop their municipal solid waste management plans is consistent with the timeframe by which they will have to meeting the condition of Item 3 above. This assumes an entry in force of the new waste code in the near future.

Article 49 Legal Acts to be adopted under this Law

- 1. The Government of Georgia shall within six months after the entry into force of this Law adopt:
- a) a by-law "on the List of Waste and Classification of Waste, according to its types and properties" pursuant to Article 2 paragraph 3 of this Law;
- b) a by-law "on the municipal waste collection and treatment" pursuant to Article 16 paragraph 5 of this Law.
- c) a by-law "on the construction, operation, closure and after-care of landfills" pursuant to Article 22 paragraph 1 of this Law;
- d) a by-law "on the rules and conditions for registration of collection, transportation, pre-treatment and temporary storage of waste" pursuant to Article 26, paragraph 3 of this Law;
- e) a by-law "on form and content of records to be kept and reports to be made" pursuant to Article 29 paragraph 4 of this Law;
- 2. The Government of Georgia shall within 2 years after entry into force of this Law adopt a by-law

on Incineration of Waste and Co-incineration of Waste.

- 3. The Ministry together with the Ministry of Economy and Sustainable Development of Georgia, in cooperation with relevant stakeholders, shall elaborate and pass to the Government of Georgia for adoption by-laws on different types of specific waste, pursuant to Article 9, paragraph 5 of this Law.
- 4. The Ministry of Economy and Sustainable Development of Georgia together with the Ministry within 1 year after entry into force of this law shall adopt one or more sub-laws setting requirements for transport of waste pursuant to Article 6, paragraph 6 and Article 7, paragraph 7 of this Law.
- 5. The Ministry of Labor, Health and Social Protection of Georgia, together with the Ministry within 2 years after entry into force of this Law shall adopt a by-law on healthcare waste management pursuant to Article 6 paragraph 3 of this law.
- 6. The Ministry of Agriculture of Georgia and the Ministry within 2 years after entry into force of this Law shall adopt a joint by-law on animal waste management, pursuant to Article 6 paragraph 4 of this Law.
- 7. Within 1 year after entry into force of this Law, the Government of Georgia shall adopt a by-law on special requirements for collection and treatment of different types of hazardous waste, pursuant to Article 20.

Article 49 - Observations and Comments

1. The further development of the national strategy and plan may determine some of the required content of the proposed by-laws on the various issues outlined above. While the content of the E.U. Waste and Landfill directives can serve as models for developing the above by-laws, consideration will need to be given to the possible transitional processes that will be required given the status of various SWM situations (markets for recyclables and compost, the planning and development process for new regional landfills, the required economic resources required to fuel improvements, etc.) The proposed national strategy and plan should be detailed enough to present an effective road map for achieving the desired results.

Article 50 Entry into force

The present Law shall become effective upon publication, except for the terms determined by Article 48 of this Law.

Annexes

Annex I. Recovery Operations

- R 1 Use principally as a fuel or other means to generate energy
- R 2 Solvent reclamation/regeneration
- R 3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)¹
- R 4 Recycling/reclamation of metals and metal compounds

^{1 (}This includes gasification and pyrolisis).

- R 5 Recycling/reclamation of other inorganic materials²
- R 6 Regeneration of acids or bases
- R 7 Recovery of components used for pollution abatement
- R 8 Recovery of components from catalysts
- R 9 Oil re-refining or other reuses of oil
- R 10 Land treatment resulting in benefit to agriculture or ecological improvement
- R 11 Use of waste obtained from any of the operations numbered R 1 to R 10
- R 12 Exchange of waste for performing of any of the operations numberedR1 to R11³
- R 13 Storage pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste is produced)

Annex II. Disposal Operations

- D 1 Deposit into or on to land (e.g. landfill, etc.)
- D 2 Soil treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)
- D 3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)
- D 4 Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds or lagoons, etc.)
- D 5 Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)
- D 6 Release into a water body except seas/oceans
- D 7 Release to seas/oceans including sea-bed insertion
- D 8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12
- D 9 Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcination, etc.)
- D 10 Incineration on land
- D 11 Incineration at sea⁴
- D 12 Permanent storage (e.g. emplacement of containers in a mine, etc.)
- D 13 mixing prior to submission to any of the operations numbered D 1 to D 12⁵
- D 14 Repackaging prior to submission to any of the operations numbered D 1 to D 13
- D 15 Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage, pending collection, on the site where the waste is produced)

Annex III. Properties of waste which render it hazardous

H 1 "Explosive": substances and preparations which may explode under the effect of flame or which are more sensitive to friction than dinitrobenzene.

^{2 (}This includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials).

^{3 (}If there is no other R code appropriate, this can include preliminary operations prior to recovery including dismantling, sorting, crushing, compacting, pelletising, drying, shredding, repackaging, separating or mixing etc. prior to submission to any of the operations numbered R1 to R11).

^{4 (}This operation is prohibited by international conventions)

^{5 (}If there is no other D code appropriate, this can include preliminary operations prior to disposal including sorting, crushing, compacting, pelletising, drying, shredding or separating etc. prior to submission to any of the operations numbered D1 to D12).

- H 2 "Oxidizing": substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.
- H 3-A "Highly flammable"
 - liquid substances and preparations having a flash point below 21°C (including extremely flammable liquids), or
 - substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or
 - solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or
 - gaseous substances and preparations which are flammable in air at normal pressure, or
 - substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.
- H 3-B "Flammable": liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C.
- H 4 "Irritant": non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.
- H 5 "Harmful": substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
- H 6 "Toxic": substances and preparations (including very toxic substances and preparations) which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks and even death.
- H 7 "Carcinogenic": substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.
- H 8 "Corrosive": substances and preparations which may destroy living tissue on contact.
- H 9 "Infectious": substances and preparations containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.
- H 10 "Toxic for reproduction": substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.
- H 11 "Mutagenic": substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce hereditary genetic defects or increase their incidence.
- H 12 Waste which releases toxic or very toxic gases in contact with water, air or an acid.
- H 13⁶ "Sensitizing": substances and preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction of hypersensitization such that on further exposure to the substance or preparation, characteristic adverse effects are produced.
- H 14 "Ecotoxic": waste which presents or may present immediate or delayed risks for one or more sectors of the environment.
- H 15 Waste capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.

⁶ If testing methods are available

ANNEX 2

DEFINITION AND STATUS OF CONVENTIONAL SWM DEVELOPMENT DRIVERS IN GEORGIA

A development driver is any factor that creates or fuels an activity. In solid waste management, this can include a number of conventional drivers that are usually in the control of various entities directly involved (service providers, regulators, etc.) or tangential (financial institutions, etc.) to the actual process of providing ISWM services and developing new SWM functions. The following presents a description of the relevant development drivers for solid waste activities as well as a general assessment of their current status in supporting SWM sector improvements in Georgia.

- Regulatory The regulatory driver is based on the mandate and enforcement of specific rules and regulations for all types of ISWM activities and facilities. A strong regulatory driver based on an effective legal framework and rigid enforcement will compel required actions by responsible stakeholders in their roles in an ISWM process. The current weak legal and regulatory framework that exists in Georgia and a lack of an effective enforcement mechanism does not provide a sufficient regulatory driver for necessary actions to develop an effective ISWM program. However, the pending new waste Code and the subsequent adoption of a national solid waste management strategy and plan as well as the recent Association Agreement with the European Union can significantly enhance the regulatory driver and its impact on future ISWM actions in Georgia.
- Economic The economic driver is based on possible economic gain that can be derived from a SWM action. For example, the development of transfer stations for transport of solid waste to remote regional disposal locations can help reduce the cost of collection and transport and, thereby, economically drive the development of the transfer facilities. In a region like Kakheti where existing disposal areas currently serving individual municipalities are apt to be closed in the future and replaced with an E.U. standard regional landfill, increased transport distances for collected solid waste for some of the region's municipalities will be required and may significantly increase transport costs thereby enhancing the economic driver. The development of transfer stations to mitigate the increased transport costs once the new regional landfills are in operation and current local disposal sites are closed is warranted as a cost saving measure. Similarly, future tipping fees that may be charged at the new regional landfills will likely have to be paid by municipalities (directly or through their service LLCs) for disposal services. These tipping fees (which will likely be based on the actual tonnage of solid waste delivered to the landfills as determined by weighbridge economic driver systems) can enhance the recovery/recycling/composting processes since there will be a greater economic incentive to divert solid waste components from disposal sites through recovery programs which may be less expensive than the cost of transporting and disposing of waste at the new regional landfills. While the general status of the economic driver for SWM action is currently weak in Georgia because of the low direct cost of disposal, a gradual increase in the overall cost (that will be inherent to the improvement process) of effective solid waste management services and facilities will help strengthen the economic driver for new and improved SWM processes.
- Political The Political Driver is based on the actions of local, regional and national leaders in their support of effective ISWM processes and facilities. The recent Association Agreement between Georgia and the European Union may be a strong indication of a growing national political driver that will impact future ISWM development activities throughout Georgia. In addition, the strong local support of municipal officials will be important in assuring that a high priority is given to municipal budget allocations for improving or expanding solid waste collection services thereby driving investments through an enhanced political driver. Differences observed in the quality and extent of collection assets and services associated with the various municipal collection programs observed during the USAID supported project assessment field work in the Kakheti region may be a function of various degrees of a local political driver which has led to more investments to improve services in some municipalities than others.

- Environmental The Environmental Driver is based on the prospects of negative environmental and health effects due to substandard SWM processes and facilities. For example, improperly sited or operated disposal areas near water bodies may create an enhanced environmental driver for implementation of new landfill facilities at more appropriate locations. The pending National law and follow-on strategy and plan will be important in providing more specificity and enforceable performance standards SWM service providers thereby enhancing the impact of the environmental driver. Adopting standards consistent with the current European Union legal and regulatory ISWM framework will significantly enhance the environmental driver in Georgia particularly in its promotion of an effective regulatory process to minimize environmental effects of substandard practices. In addition, the environmental driver may become more forceful as a result of public awareness and education programs that will help the public understand the environmental and health consequences of existing substandard facilities and poor SWM practices and the need to pay for improved performance and facilities.
- Social The social driver is based on the response of people to the function of existing SWM processes. For example, public outcry due to major littering problems resulting from an ineffective collection program or indiscriminate random dumping can create a strong social driver for ISWM program improvements. However, general observations made during the assessment field work showed that current collection programs in the urban centers of the municipalities in the at least the Kakheti and Adjara regions are generally effective given the financial and technical resource deficiencies that exist in most of the municipalities particularly in the Kakheti region. However, a lower level of service or no service in outlying village and rural areas in all of the municipalities can create a localized social driver due to requests by residents and businesses of unserved areas for expanded collection service coverage. In addition, while some level of informal recycling may still be occurring from collection containers, most of the informal recycling at the official disposal sites now under the control of the SWMCG has been eliminated in the Kakheti region. In other countries where this control has not occurred, the activities of informal recyclers at disposal areas and the conditions under which they live and work at those sites often becomes a strong social driver for improving the conditions that these people are exposed to.

The pending national strategy and plan should include elements that are intended to optimize the above development drivers as they apply to SWM situations in Georgia. Government actions evolving from the strategy and plan can significantly influence the function of the drivers and the prospects that they will support the implementation of the desired results.