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The United Nations issued the first Environmental Performance Review of Georgia (Environmental Performance Reviews Series No. 18) in 2003.

This volume is issued in English and Russian only.

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Preface

The second Environmental Performance Review (EPR) of Georgia began in May 2009 with a preparatory mission. During this mission, the final structure of the report was discussed and established. A review mission took place from 28 September 2009 - 7 October 2009. The team of international experts taking part included experts from Bulgaria, Germany and Portugal, as well as from the secretariats of the United Nations Environment Programme (UNEP), the United Nations International Strategy for Disaster Reduction (UNISDR) and the United Nations Economic Commission for Europe (UNECE).

The draft EPR report was submitted to Georgia for comment and to the Expert Group on Environmental Performance Reviews for consideration in February and March 2010. During its meeting on 15 March 2010, the Expert Group discussed the report in detail with expert representatives of the Government of Georgia, focusing in particular on the conclusions and recommendations made by the international experts. The Expert Group decided to address those recommendations of the first EPR of Georgia that were still valid in two different ways. If a chapter from the first EPR was also covered in the second EPR, then valid recommendations and their conclusions from the former would be reflected at the end of the respective chapter in the latter. If a first EPR chapter however was not covered in the second EPR, valid recommendations would be mentioned in Annex I-A "Valid Recommendations from the first Environmental Performance Review not covered in preceding chapters". The remaining first EPR recommendations that had been implemented partially or fully would be covered in Annex I-B "Implementation of the recommendations of the first Environmental Performance Review".

The EPR recommendations, with suggested amendments from the Expert Group, were then submitted for peer review to the Extended Bureau of UNECE Committee on Environmental Policy on 16 March 2010. A high-level delegation from Georgia participated in the peer review. The Committee adopted the recommendations as set out in this report.

The Committee on Environmental Policy and the UNECE review team would like to thank the Government of Georgia and its experts who worked with the international experts and contributed their knowledge and assistance. UNECE wishes the Government of Georgia further success in carrying out the tasks involved in meeting its environmental objectives, including the implementation of the recommendations contained in this second review.

UNECE would also like to express its deep appreciation to the Governments of the Netherlands, Norway and Switzerland for their financial contributions; to the Governments of Germany and Portugal for having delegated their experts for the review; to UNEP, UNISDR and the United Nations Development Programme for their support of the EPR Programme and this review.

Executive summary

The first Environmental Performance Review (EPR) of Georgia was carried out in 2003. This second review intends to measure the progress made by Georgia in managing its environment since the first EPR, and in addressing upcoming environmental challenges.

The country and its economy are quite vulnerable to external and internal shocks. This is mainly owing to the fact that Georgian industry is based on an old industrial infrastructure and is in effect obsolete at world market prices. In addition, industrial output relies solely on the activity of a very small number of companies, with some 50 industrial enterprises responsible for over 75 per cent of total output. The economy seems also to have been burdened by a shadow economy that, by some estimates, may even be larger than the official one.

Since 2004 the country has carried large deficits, which have been increasing steadily both in amount and as a percentage of gross domestic product (GDP). Georgia's national debt grew from US\$ 0.43 billion in 2004 (8.4 per cent of GDP) to US\$ 3.23 billion in 2008 (25.3 per cent of GDP). Moreover, the consumer price index (CPI) surged to 9.9 per cent in 2008, mainly owing to the high prices of oil and food, as well as the rapid growth of the money supply, related to higher public spending demand in the first half of 2008.

Privatization also played a role in attracting foreign direct investment (FDI), as the Government continued to sell a wide variety of assets. Since 2003, FDI inflows have risen strongly, mainly owing to the building of oil pipelines. Net FDI surged in 2006 to over US\$ 1 billion, as investment in the manufacturing, banking and tourism sectors more than offset lower pipeline-related investment. FDI inflows increased further in 2007, reaching US\$ 1.7 billion.

Policy-making framework for environmental protection and sustainable development

Mostly in the aftermath of the Rose Revolution of November 2003, major political changes have come about. A host of constitutional, institutional and legislative changes took place following the 2004 presidential elections. They reflected the President's main priority of drastically reforming the economy in order to achieve rapid economic growth and accelerating the privatization of State property.

Since then, the Cabinet of Ministers has undergone frequent changes in its composition, which could impede effective functioning. Ministries have been renamed, abolished or established and ministers are frequently being replaced or shuffled to another ministry. This reshuffling includes the post of Prime Minister, which is a presidential appointment, and the post of the Minister of Environmental Protection and Natural Resources. Since 2006 there have been five Prime Ministers. Since 2004, there have been 8 Ministers of Environmental Protection and Natural Resources and 19 deputy ministers, thus affecting the continuity of work of the Ministry of Environmental Protection and Natural Resources (MEPNR) and sometimes hampering its successful operation.

In 2008, the Government began drafting of an environmental code, encompassing all environmental laws and normative and sub-normative acts. The draft environmental code is intended to bring together in a general framework law all environmental conventions ratified by Georgia along with new environmental legislation, with a view to introducing an innovative approach to harmonizing, systematizing, unifying and integrating existing and future environmental obligations. The draft environmental code is being developed and drafted on a chapter-by-chapter basis in an attempt to capture the various subjects comprehensively.

The proposed environmental code is expected to introduce market-oriented mechanisms, international standards and good practices on environmental protection and management. Among priority challenges,

MEPNR will face the difficult task of convincing the Government of the necessity of adopting an environmental code, since environmental protection and sustainable development are not a high priority for the Government. Further, the balance between use of natural resources and promotion of environmental protection appears to be a contentious point.

Few strategic documents on the environment have been approved by the Government. MEPNR has prepared action plans, but these are not approved and are intended for internal use only. There have been further attempts to formulate multi-year environmental strategies. Although some of these draft strategies, plans or programmes have been under development for several years and sometimes final drafts have been produced, none of them has been formally adopted as yet for a variety of reasons: absence of budgetary provisions; frequent changes in the leadership of the Ministry; a lack of interest and support from the Government on environmental issues in general; and the lack of public interest in such documents also due to a lack of ownership at State institutions.

In 2005 the Government established a governmental Commission on Sustainable Development. The representation was rather broad, with the leadership ensured by the Prime Minister and representation from all the ministries. However, the Commission has never been convened and therefore is not yet operational. Moreover, the composition of the Commission has to be renewed due to several changes since 2005 in the Cabinet of Ministers and this has not yet taken place. Due to that inertia, the development of a national strategy on sustainable development has never started.

Compliance and enforcement mechanisms

Since November 2003, the aim of implementing and enforcing environmental legislation is primarily focused on fighting corruption and illegal use of natural resources rather than ensuring compliance with environmental regulations. At the same time, environmental enforcement has been strengthened via the establishment of the Environmental Inspectorate within the MEPNR. The Strategy of Environmental Compliance Assurance in Georgia for the period 2007–2010 has been developed and determines the milestones in developing a modern system of environmental compliance. However, its implementation, which is supported by an adopted operational plan, is far behind schedule, as few of the planned activities have been carried out by the Environmental Protection Inspectorate at the MEPNR.

Two considerations are potentially competing in the country: facilitating investment and applying assessment tools, including those involving public participation in decision-making. Although, applying the latter tools may sometimes be seen as prolonging administrative procedures and therefore as delaying investments in the country, the long-term benefits from the application of such tools for environmental protection cannot be overstated or ignored.

National legislation has still to define mechanisms such as strategic environmental assessment. Strategic documents from various economic sectors are developed without taking into account environmental considerations, with the exception of a few strategic documents that have taken this tool into consideration. That gap in Georgia's legislation poses a major threat to the country's environment, while rendering questionable its ability to comply with domestic legislation, as well as with international environmental agreements to which Georgia is a party. There is no environmental auditing in practice; however, environmental impact assessments are carried out for existing facilities, as well as in most cases involving privatization.

Different types of environmental licensing and permit procedures were merged into a single legislative act: the 2005 Law on Licences and Permits. The establishment of common rules should be considered as a step forward. Enterprise self-monitoring is still not regulated, but the Law on Licences and Permits stipulates selective inspections (once a year) as the main instrument for compliance monitoring.

Information, public participation and education

Since its first EPR, Georgia has made some progress in setting up an appropriate monitoring system, harmonizing environmental norms and standards with international ones, providing access to environmental information to the public and promoting public participation in environmental decision-making. Much still needs to be done by the Government and the relevant authorities to really make environmental monitoring an effective information and policy tool, promote public participation in decision-making and introduce the sustainable development principle into education and training at various levels.

Water and air quality monitoring has suffered from aging monitoring equipment and insufficient funding over the past few years. Some improvements in the measurements since the last EPR have been made thanks to the international cooperation in this field, but staff training is still lacking. At the same time, the groundwater monitoring system was abolished and now relies on entities receiving licences to extract thermal, mineral or freshwater. Only information on groundwater quantity is assessed and used. Soil monitoring was discontinued in 2003, although laboratory capacity in Tbilisi to measure concentrations of pesticides, heavy metals and oil products in soils was restored in 2009.

From 2003 to 2006, annual national reports on the state of the environment were submitted to the President, but never published. However, all reports for the period 2003–2005 have been made available on the Aarhus Centre’s website. The 2006 report (not yet approved) is available on the website of MEPNR. Since then, no report has been published.

Awareness-raising and involvement of civil society on environmental matters is well established. Non-governmental organization (NGO) registration is rather simple. Although NGOs are not funded by the Government, they participate in tenders. To sensitize the public on environmental matters, the Public Relations and Media Service within the Ministry handles press conferences and briefings, publishes press releases and digests, brochures and flyers, and prepares statements for the media. It also promotes awareness-raising campaigns, produces advertisements and video clips and organizes seminars and trainings for journalists.

In contrast, public participation on environmental decision-making is lagging behind. Recent changes in legislation reduced the issuance of licences for natural resource use to simple administrative proceedings, depriving the public of an opportunity to access information and participate in decision-making. Moreover, an environmental impact assessment (EIA) is no longer required for activities having considerable impact on the environment and human health, and an EIA waiver was introduced for certain activities of general State interest.

Since 2007, preschool educational curricula include environmental matters. In 2005, the role of environmental education was emphasized and included in national curricula from the elementary to the high school level, in particular promoting the concept of sustainable development. Following that trend, leading universities now teach various environmental courses. However, there is no cooperation arrangement between MEPNR and the Ministry of Education and Sciences, which cooperate on an ad hoc basis in the implementation of the UNECE Strategy for Education for Sustainable Development (ESD).

Implementation of international agreements and commitments

Georgia has rethought its approach to the timing of accession to various international instruments and now conducts analyses of the changes needed to ensure compliance before acceding to various instruments. Yet much remains to be done to strengthen implementation and improve the country’s ability to better absorb and utilize external assistance and investment. In addition, major conventions and protocols remain unratified and significant shortcomings persist in the national institutional, legal and policy framework, such as the absence of a sustainable development strategy.

Georgia is currently a party to 16 multilateral environmental agreements (MEA) and 3 protocols, having ratified 4 MEAs since its first EPR. Georgia tries to fulfil its reporting obligation to all MEAs. Although progress has been achieved in MEA implementation, much remains to be done, mostly due to data scattered between different institutions. There is no comprehensive database.

International cooperation has played a critical role in strengthening environmental protection efforts. Due to the importance of international assistance and investment in Georgia's environmental protection efforts, donor-funded projects have to be coordinated in an efficient way. For that purpose, a project preparation unit was established to act as a focus for coordination with donors and international financial institutions. The unit was abolished in 2008, which has resulted in a loss of coordination and overlaps between concurrent and successive projects, as well as a loss of institutional memory which would facilitate the design of new projects.

Economic instruments and expenditures for environmental protection

The economic value of environmental policy has effectively been ignored. Since 2004, the main focus of the Government agenda has been on liberalizing and deregulating economic activity. The potential scope for more stringent environmental policy has been curtailed. One possible reason for this appears to be concern about international competitiveness. Generally speaking, environmental protection has not been mainstreamed to any extent into the country's development strategy for the economy as a whole.

The pollution tax and the tax on the use of natural resources were abolished. The main aim of the 2005 Tax Code was the reduction of the tax burden and elimination of administrative barriers to doing business. As a result, the number of taxes was reduced from 21 to 7.

The recent introduction of a medium-term expenditure framework will help public authorities to plan ahead with regard to public expenditure, linking policy priorities and the annual budget. Given the cross-sectoral feature of environmental protection, much would be gained from better integration of environmental policy issues in sectoral development strategies and related foreign assistance.

Low priority has been accorded by the Government to environmental protection. Government revenues were improved thanks to high rates of economic growth and more stringent tax collection. As for environmental protection, expenditures accounted on average for some 0.5 per cent of total central Government outlay in 2007 and 2008, compared with 5.2 per cent in the local government budgets. In the consolidated State budget, expenditure on environmental protection accounted for an average share of 1.5 per cent in 2007–2008, corresponding to 0.5 per cent of GDP. Nevertheless, the State budget allocation to MEPNR, mostly used for staff costs, increased by a factor of 45 in 2009 as compared with 2002.

Sustainable management of water resources and protection of the black sea

Although Georgia's water resources are sufficient in terms of economic demand and public needs, the water supply sector has not really developed; waterborne diseases still occur; and the sanitation situation seems to be worse than in 2002. The level of river pollution is high overall and varies depending on the amount of untreated wastewater discharges and concentration of pollutants. Sanitary and technical conditions of the water supply system are very poor. Pipes are generally 40 or 50 years old, exceeding their life cycle. No rehabilitation or repair works have been carried out for the last 20 years. On average, water loss is estimated at 45 per cent at least.

The situation concerning wastewater is unsatisfactory. Only 70 per cent of the urban population is connected to the sewerage system existing in about 40 towns. In rural areas, the connection rate is much lower. The condition of the wastewater pipes is very bad, and leakages endanger the groundwater resources as well as drinking water in places where water pipes are not tight. Existing wastewater treatment plants, except one

located near Tbilisi/Rustavi, are damaged and most cannot be rehabilitated. The sewage collected is dumped into the rivers without any treatment.

As far as the institutional framework is concerned, responsibility for water issues is spread among various institutions. The legal and institutional changes of the past few years have made the water resource management system rather unclear. The regional/local institutions have only limited competences. Although responsibility for water is clearly distributed among many ministries, integrated water resource management could be achieved through effective coordination, but the fact that local authorities do not feel responsible for the protection of their local water bodies would make this difficult. A strategy on integrated water resource management has never been developed.

The Black Sea is important for Georgia as a recreational area and fish resource, but is still polluted by wastewater. Untreated municipal wastewater, with huge loadings of organic material and nutrients, is discharged by cities directly into the sea or into rivers, critically endangering bathing water quality. Industrial facility maintenance and inadequate treatment of wastewater from oil refineries and port facilities significantly impact water quality in the coastal zone. In addition, a lack of proper management of municipal landfills, waste degradation and dumpsite erosion endanger the Black Sea. However, as a positive development, the regional Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea was adopted in April 2009 and calls for specific implementation programmes.

Waste management

Waste management has not yet undergone urgently needed reform since 2003. The current situation is dramatic and waste management requires urgent attention from decision makers. There are no general strategies, policies or plans of action; the existing legal framework is inadequate; and the institutional set-up poses problems due to a lack of staff and funds. Waste continues to be disposed of inappropriately.

It is not unusual for municipal dumpsites to be set up on the fringes of watercourses or in riverbeds, in bushes or along railways. Sixty three dump sites, considered as official landfills, are reported and occupy between 280 and 300 ha. In addition, another 28 spontaneous landfills are reported in villages where there are no waste-management services. These sites often lack fences. Recycling facilities are very limited and composting is only done by some farmers for their own use. Industrial waste is disposed of mainly at the industrial sites and in their vicinity, without following environmental requirements. There are still no treatment facilities for industrial waste.

The country has inherited problems with orphan radioactive sources. The main origins of these sources are military and civil, although there are also some cases of illegal trade. The temporary absence of regulatory controls has contributed to the extent of the problem. Since 2003, the capability to detect and manage adequately orphan radioactive sources has been increasing. Georgia has set up a State regulatory system for radioactive waste. The system is based on national legislation and includes an inventory of ionization radiation sources and activities related to them, as well as the licensing and supervision of nuclear and radiation activities.

Risk management of natural and technological/anthropogenic hazards

The legislative base for addressing disaster risk management is in place, but its implementation shows certain shortcomings. These include inefficient functioning of the national coordination mechanism and scattering of institutional efforts among various Government agencies, and insufficient public awareness. While the Government is undertaking efforts to improve the national legal framework with regard to disaster preparedness, legislation on disaster response and recovery still does not comply with international standards and norms in many aspects. Moreover, disaster response and recovery are not considered a priority by the Government.

Existing data on disaster response and recovery is unreliable and scattered. Georgian scientists are forced to rely on obsolete analogue equipment, lack funds and have inadequate Government support. At present, risk assessment has been given lower priority compared to disaster response and recovery although Georgia adopted the Hyogo Framework for Action in 2005 and therefore disaster risk reduction has become a Government priority.

Forestry, biodiversity and protected areas

In April 2007, a major change of policy occurred in the forestry sector, leading to a fast-track divestiture of most forest management responsibilities from the Government to the private sector and municipalities. Four long-term forest licences were immediately auctioned. Since that time, commercial logging has been based on forest-use licences. Twelve special long-term (20-year) logging licences have already been auctioned. Five out of nine licenses were purchased by a joint venture, which was the only bidder at the respective licence auctions. As a rule, the general public, including local communities, does not participate in the decision-making process for issuing such licences; and the ecological, cultural, social, recreational and other values of the forests are not taken into account.

Since 2002, the total number of protected areas more than doubled and their total territory increased by 75 per cent. The protected areas system adequately represents the full diversity of ecosystems with protected high conservation value sites, but the system has weaknesses. For example, adequate protection against the extinction and extirpation of species on protected areas is not ensured; the level of primary exemplary and intact ecosystems is low; the level of research and monitoring has remained low; and biological corridors between protected areas are absent.

Although numerous efforts have been made in the past to develop the framework on forestry, biodiversity and protected areas, delays have not been avoided. The reasons lie in the lag in development and adoption of key sectoral policy documents. Since the 1990s, forestry policy and forestry management have been considered to be priorities, but a policy document for forestry has still not been adopted.

Conclusions and recommendations

Chapter 1: Policymaking framework for environmental protection and sustainable development

The Ministry of Environment Protection and Natural Resources, in an attempt to streamline and harmonize current environmental legislation, has embarked upon an ambitious initiative to produce an all-encompassing Environmental Code, and has devoted considerable resources and energy to achieving this goal. Despite the advantages of such a Code, due to the scale of this undertaking difficulties of technical and policy nature may arise. Like any other national normative or executive act, the Code requires approval at governmental level by other interested ministries at the Cabinet of Ministers, where potentially competing interests of other key ministries may need to be taken into consideration. Following governmental approval, the original or modified Code will need to be considered and adopted by the Georgian Parliament. Experience since the first EPR shows that the approval and adoption at the governmental level of less ambitious and sector-specific environment-related legislative or executive acts has either been unduly delayed or completely blocked. Accordingly, in this case, past experience may be cause for some concern, because the scale of the Code makes it more, rather than less, likely that the approval process by the executive and legislative bodies of the country will face delays and resistance. Such delays may eventually lead to the need to develop an alternative option to use the separate chapters of the Environmental Code in the event that adoption as a whole proves problematic.

Recommendation 1.1:

The Ministry of Environment Protection and Natural Resources, in further developing the Environmental Code, should:

- (a) Ensure that the Code includes adequate provisions for public participation in accordance with national and international obligations;*
- (b) Ensure that broad support for the draft Environmental Code is being established during its drafting phase, through engaging civil society and involving other ministries as well as members of the Cabinet of Ministers in order to increase the possibility of its adoption and subsequent implementation;*
- (c) Continue to work on parallel tracks to ensure that existing gaps in sectoral environmental legislation are adequately addressed.*

Experience across countries and over time shows that the existence of a national strategy for sustainable development is a prerequisite for the effective integration of environmental policy into other economic sectors and for adequate environmental protection both nationally and internationally. In the case of Georgia, no strategy for sustainable development exists, despite the fact that such a strategy is required under domestic law (Article 15, paragraphs 3 and 4 of the 1996 Law on Environmental Protection), was strongly recommended in the first EPR and has been the subject of repeated calls to this effect from the international and donor community. Furthermore, the 1996 Law on Environmental Protection also stipulates that NEAPs should be based on sustainable development strategies. Despite the unquestionable need and support for the development and adoption of such a strategy, Georgia has not to date developed or adopted such a strategy, and there is no evidence that any efforts are being made to this end.

Recommendation 1.2:

The Government, under the leadership of the Prime Minister and the direction of the National Commission on Sustainable Development, should, as a matter of urgency:

- (a) Develop and adopt a national sustainable development strategy, taking into consideration international good practices and making use of opportunities for public participation in the strategy's formulation;*
- (b) Ensure the strategy's effective implementation through the development of the necessary instruments at national level and the allocation of adequate financial resources.*

Prevalent international practices suggest that the cornerstone of an effective environmental policy framework is the existence of a realistic and well-supported National Environmental Action Plan. This key policy document exists in law but not in practice in the case of Georgia. Specifically, Georgia never adopted its second five-year National Environmental Action Plan (NEAP) covering 2005–2009, which should have succeeded the first NEAP that covered 2000–2004, according to the 1996 Law on Environmental Protection. The fact that an entire five-year NEAP cycle (2005–2009) has passed without the formal adoption of such a plan clearly undermines environmental protection in the country, is not in conformity with national law and international practices, and remains in defiance of repeated calls for corrective action from the international community and donors.

As was the case for the first NEAP, procedures for the NEAP process are still not defined by legislation. As can be seen in the case of the draft second NEAP that was finalized and intended to cover 2008–2012 but was never formally adopted by the Government, this lack of procedures and unclear decision-making framework hampers the Government's efforts to adopt an environmental policy. In turn, the first NEAP was hamstrung by the fact that it was not directly linked to any budgetary process or financial resources, but rather designed with the expectation of financial assistance predominantly coming from international donors.

Recommendation 1.3:

The Ministry of Environment Protection and Natural Resources should:

- (a) *Evaluate shortcoming in the implementation of past programmes and strategies;*
- (b) *Based on these evaluations, finalize through interministerial and public consultations the second National Environmental Action Plan (NEAP), with a linkage to the budgetary planning system, and submit it to the Government for adoption*
- (c) *Make available the resulting documents to the public, while making every effort to identify and address possible information gaps that existed in the past.*

Recommendation 1.4:

The Government should:

- (a) *Adopt with utmost urgency the second NEAP, following its finalization by MEPNR, and*
- (b) *Establish formal procedures for the development and adoption of the national, regional, local and/or sectoral strategies, plans or programmes. The Government should take both environmental and natural resources considerations into account, as appropriate, when developing strategies and programmes.*

Georgia is considered as an important area for cultivated plant diversity. Due to the high risk of genetic contamination of native cultivars and their wild relatives, testing and use of genetically modified (GM) plants or seed materials may pose serious threats to Georgian agrobiodiversity. It is therefore important to ensure the safe transfer, handling and use of genetically modified organisms resulting from modern biotechnology in order to achieve an adequate level of protection from potential adverse effects on the conservation and sustainable use of biological diversity. To this end, Georgia acceded to the Cartagena Protocol on 26 September 2008. However, the development of the national legislative base is necessary to fill existing gaps and to adequately regulate biosafety related issues in Georgia.

Recommendation 1.5:

The Ministry of Environment Protection and Natural Resources should:

- (a) *Accelerate the process of adoption of legislation on biosafety at the national level;*
- (b) *Strengthen those institutions that will be responsible for the effective functioning of the biosafety system in Georgia.*

* * * * *

As decided by the Expert Group on Environmental Performance Reviews, those parts of recommendations from the first EPR of Georgia that are still valid, and their preceding conclusions are listed below.

Georgia is strongly committed to environmental protection. Over the past decade, the country has created firm legal and political groundwork for activities in this area, including environmental legislation and numerous planning documents. The legislation attempts to follow advanced international practices and provides for the application of widespread legal mechanisms and standards, including environmental impact assessment, economic instruments, inspection and monitoring, and permitting. At the same time, several laws, like the Law on Air Protection or the Law on State Ecological Expertise, make explicit reference to EU legislation without adapting this legislation to the specific needs of the Georgian legislative system. This leads to the odd situation where a law can call for the implementation of another law that proceeds from rules that are not valid in the country. Furthermore, most of the EU legal documents, such as the directives, provide a framework and set objectives for certain activities but give EU member States discretion in providing for the ways and means of reaching them.

EPR I - Recommendation 1.1:

The Ministry of Environment and Natural Resources Protection and other relevant ministries, in attempting to converge their legislation with EU directives, should adapt the objectives and standards to national legal practice.

To follow best European experience in the legal regulation of environmental protection, drafters of national laws may also borrow mechanisms or procedures from EU directives or other legislative acts and adapt them to the country's legal system.

Overall, the environment-related legislation is comprehensive, but, in many instances, it lacks the necessary implementation mechanisms. Among the most important are regulations that clearly translate framework provisions of laws into competences, functions, obligations, practical measures and procedures.

EPR I - Recommendation 1.2:

The Ministry of Environment and Natural Resources Protection and other relevant State bodies should:

- (a) Prepare the necessary regulations and other appropriate instruments for government decision or adoption;*
- (b) Amend existing laws that do not conform to the appropriate criteria.*

Licensing and environmental permitting are widely recognized tools for environmental protection. They allow the State to control activities that use natural resources and to prevent or mitigate adverse environmental impact. At the same time, licensing and permitting procedures in Georgia appear to be unduly complicated and lack integration. According to the Law on Environmental Protection, there is a combined system of licences and permits. There are three kinds of environmental licences: licences for environmental protection activities, licences for environmental pollution and licences for the use of natural resources. The first two are issued at the discretion of the Ministry of Environment and Natural Resources Protection, in accordance with criteria established by law; the third is decided by intersectoral councils under the Ministry of Environment and Natural Resources Protection. Environmental permits, which may only be given after an environmental licence has been issued and both an environmental impact assessment and a State ecological expertise have been carried out, are also under the sole responsibility of the Ministry of Environment and Natural Resources Protection.

However, the Law on Water and the Law on Ambient Air Protection require additional permits for the discharge of emissions into water and air. Under this system, an entrepreneur may have to obtain several licences for a single project, requiring applications to different interdepartmental councils for licences and then to the respective ministries for permits. The procedure is costly and time-consuming for the applicant and inefficient for the administration.

EPR I - Recommendation 1.3:

The Ministry of Environment and Natural Resources Protection should:

(b) *Redraft the Law on Environmental Permit and streamline permit issuing procedures to ensure that only one environment-related permit is required. In this regard, the respective provisions of the Law on Water and the Law on Ambient Air Protection should be harmonized with the Law on Environmental Permits.*

The prevention of environmental impact and a comprehensive approach to environmental protection are ensured through State ecological expertise and environmental impact assessment. Although these mechanisms have already been successful, further improvement is needed. The legal rules are too general. Among other things, they do not take into consideration specific features of various economic and other projects, do not provide for scoping, and do not require long-term, cumulative and transboundary effects to be assessed.

EPR I - Recommendation 1.4:

(a) *The Ministry of Environment and Natural Resources Protection should develop detailed regulations for conducting State ecological expertise and environmental impact assessment that would provide for the comprehensive assessment of all impacts, including long-term, cumulative and transboundary effects. The requirements for scoping as an integral part of the EIA procedure should be introduced too;*

(b) *The Government is encouraged not to approve projects subject to EIA before the assessment and the State ecological expertise have been completed and the environmental permit issued by the Ministry of Environment and Natural Resources Protection, as stipulated in the law.*

Inspection and enforcement by State bodies remain an important tool for ensuring compliance with legal requirements. The legislation for this has been developed, but significant institutional questions have not been addressed. These are generally of two kinds: duplication of functions and unclear functional boundaries on the one hand, and lack of capacity, on the other.

EPR I - Recommendation 1.5:

(b) *The Ministry of Environment and Natural Resources Protection should establish an environmental State inspectorate with full inspection powers for environmental enforcement. Companies should also be encouraged to carry out self-monitoring and reporting, as is now required in the Law on Ambient Air Protection. To support self-monitoring, the Ministry of Environment and Natural Resources Protection should encourage the establishment of accredited laboratories and accrediting agents.*

Chapter 2: Compliance and enforcement mechanisms

The legislative framework regarding the assessment tools – environmental impact assessments (EIAs) and ecological expertises (EEs) - has been developed substantially since Georgia's first EPR, and progress has been made in terms of greater transparency in decision-making. As described in the Chapter on public participation, the EIA process has been improved by giving the public access to documents and soliciting their feedback. The obligations of the investor and the competent authority in this process are clearly stated.

On the other hand, owing to radical new legal provisions (2005 Law on Licenses and Permits, 2006 Law on State Support to Investments, and 2008 Law on Environmental Impact Permit), the full application of EIAs and EEs is limited to certain activities or is waived entirely for projects of public interest (e.g. public

infrastructure and others) if the Ministry of Environment Protection and Natural Resources (MEPNR) so decides. There is no screening procedure helping the competent authority decide on the need for an EIA for activities not listed as requiring a mandatory EIA. In practice, EIAs are not required for activities that might cause a substantial negative impact such as activities in food industry, agriculture or tourism.

In addition, it is not clear whether the transboundary EIA is properly implemented by the country, and the UNECE Convention on EIA in a Transboundary Context has still not been ratified.

Thus, despite the detailed legal provisions on the way in which EIAs and EEs should be conducted, practical application is seriously hampered by the limitations in scope introduced since 2005 to expedite investment in Georgia.

Recommendation 2.1:

In order to guarantee the effective implementation of EIA:

- a) *The Government should propose to the Parliament the necessary changes in the Law on Licenses and Permits, the Law on State Support to Investments and the Law on Environmental Impact Permit in terms of expanding the scope of the activities subject to EIA and increasing the time for the environmental authorities to review the EIA report and prepare the conclusion of the EE;*
- b) *The Ministry of Environment Protection and Natural Resources should elaborate further provisions for screening as an integral part of the EIA process concerning the activities that are beyond the scope of mandatory EIA;*
- c) *The Ministry of Environment Protection and Natural Resources should elaborate further provisions to introduce EIA into a transboundary context.*

Despite the implementation of many projects aimed at the introduction of the strategic environmental assessment for plans and programmes (SEA), this assessment tool does not exist in national legislation. At the same time, strategic documents have been developed or are under preparation without proper integration of environmental considerations, for example the National Tourism Development and Investment Strategy, submitted to the Ministry of Economic Development.

Recommendation 2.2:

The Ministry of Environment Protection and Natural Resources should develop the necessary legal provisions in order to introduce the strategic environmental assessment into the national legislation as soon as possible and should submit the draft legislation to the Government and the Parliament for adoption.

The environmental permit issuance system is not properly developed. No permits on air, waste water or waste exist. Currently, for activities subject to EIA, EIPs are issued based on EIA reports and technical documentation including emission type and source. The same methodology is used to issue EIPs also for existing facilities: permit conditions are based on technical reports and inventories of emitted pollutants and admissible emission norms before a permit is issued. In most cases, the permit has quite general conditions referring to the normative requirements but not individual norms. The Best Available Techniques (BAT) approach is used not to set permit conditions but to allow pollution up to the level of environmental quality standards.

The large number of industrial pollution sources is regulated based on technical regulations. The uniform norms emissions into air and water irrespective of the size and impact of the different polluters make it difficult to effectively monitor and enforce compliance with the norms.

Although the MEPNR is the competent authority for issuing licenses and permits for nuclear and radiation activities, the Environmental Monitoring Laboratory (EML) specialized in Radiation Safety is not operated by the MEPNR but is directly subordinate to the President's Office. This distribution of roles hampers verification of conditions for the licenses and permits issued.

Recommendation 2.3:

The Ministry of Environment Protection and Natural Resources should:

- a) *Differentiate environmental permitting approaches and procedures used for large industry and small and medium-sized enterprises;*
- b) *Introduce a system for activities not subject to integrated permits to regulate air emissions, wastewater discharges and waste releases and water abstractions;*
- c) *Formulate permit conditions more precisely, with a possibility of reviewing them whenever significant changes are introduced into processes, production volumes or regulatory requirements;*
- d) *Introduce gradually the integrated permitting system, based on the concept of "best available techniques";*
- e) *Undertake the necessary steps to return the Environmental Monitoring Laboratory for Radiation Safety to its jurisdiction in order to exercise effective and complete control over the implementation of the licenses and permits issued for nuclear and radiation activities;*

Since its establishment in 2005, the Inspectorate of Environmental Protection at the MEPNR has been the main institution responsible for the promotion and enforcement of environmental regulations as well as for the prevention and elimination of environmental violations. These are still goals to be achieved in parallel with the implementation of the Operational Plan of the Strategy of Environmental Compliance Assurance approved in 2007.

At present, more attention is paid to the functions of the Division on Urgent Response than to the Division of Inspection especially in the territorial bodies, because more priority is still given to reducing illegal use of natural resources than to verifying compliance of the industrial pollution sources with the environmental norms. Thus, the environmental control authorities at the central and territorial level remain understaffed and overloaded.

Appropriate assistance, such as methodological support and staff training, would facilitate the work of enforcement authorities at the regional level, enabling them to properly perform the functions delegated to them. In addition to providing support, the national level authority, the Environmental Protection Inspectorate at the MEPNR, does not exercise adequately strict quality control of inspection or ensure cross-country uniformity and fairness of regulation.

Recommendation 2.4:

The Ministry of Environment Protection and Natural Resources should:

- a) *Implement fully the Strategy of Environmental Compliance Assurance. Special attention should be paid to the preparation of the guidelines on carrying out site visits and drawing up inspection reports as well as to the preparation of guidelines on the inventory of the regulated community;*
- b) *Organize regular training of environmental inspectors to strengthen the capacity of the Environmental Inspectorate and its territorial bodies and guarantee uniformity of the compliance assurance and enforcement.*

Chapter 3: Information, public participation and education

While Georgia has taken some promising steps to improve monitoring of biodiversity, no urgently needed progress has been made in developing its ambient environmental monitoring networks. Network density is far below the requirements of national monitoring regulations. Concentrations of a number of pollutants identified by the international community as being most harmful to human health and the environment are not measured. There is no nationwide environmental electronic database.

Recommendation 3.1:

The Ministry of Environment Protection and Natural Resources should develop proposals, with relevant budgets and time schedules, for submission to the Government for approval:

- (a) *To enlarge the ambient environmental monitoring networks to meet the requirements of existing*

monitoring regulations;

(b) *To increase the number of parameters measured, in particular, $PM_{2.5}$ and PM_{10} , VOCs, PAH and POPs in ambient air and biological parameters at all water monitoring posts;*

(c) *To switch, step by step, to automatic measurement, and improve data quality control and storage procedures;*

(d) *To establish an environmental database at the National Environment Agency that is easy for use and accessible to the public.*

The Department of Statistics, currently under the Ministry of Economic Development, has discontinued its own collection of environment-related statistical data. The environment statistics that it publishes in environmental compendiums and the Statistical Yearbook of Georgia based on data provided by MEPNR are not reliable, display major gaps in time-series data and are not consistent with internationally agreed indicators. As a result, decision-makers and the general public do not have a correct and comprehensive picture of the state of the environment, pressures on it, impacts on human health and the effectiveness of environmental protection measures. Nor is Georgia able to comply strictly with its environmental reporting obligations to the international community, especially to the governing bodies of multilateral environmental agreements to which it is a party.

Recommendation 3.2:

In cooperation with MEPNR, the Ministry of Labour, Health and Social Affairs, the Ministry of Agriculture and other relevant public authorities, the Ministry of Economic Development should prepare proposals with time frames and proposed budgets for submission to the Government for approval, on urgently restoring and improving the collection and publication of statistical data on the environment. Recommendations from the UNECE Guidelines for the Application of Environmental Indicators in Eastern Europe, Caucasus and Central Asia that were endorsed at the Belgrade (2007) Ministerial Conference “Environment for Europe” should be used in this process.

In accordance with the Law on Environmental Protection, in 2003–2006, MEPNR submitted annual national report on the state of environment to the President. These reports were largely descriptive and did not use internationally agreed environmental indicators. None of these reports were published. MEPNR lacks expertise and resources to produce environment assessment reports of the scope and content as recommended by the UNECE Guidelines for the Preparation of Indicator-Based Environment Assessment Reports in Eastern Europe, Caucasus and Central Asia that were endorsed at the Belgrade (2007) Ministerial Conference “Environment for Europe”. The 2007 amendment to the Law on Environmental Protection changed the periodicity of report preparation to once every three years. MEPNR is currently drafting a revised presidential decree on the rules for the preparation of state-of-the-environment reports. There are hardly any MEPNR publications on environmental pollution in Georgia and its regions.

Recommendation 3.3:

In drafting a revised presidential decree on the rules for the preparation of state-of-the-environment reports, the Ministry of Environment Protection and Natural Resources should follow the UNECE Guidelines for the Preparation of Indicator-Based Environment Assessment Reports and ensure that the reports are reader-friendly and accessible to the public. In between the publications of the report, MEPNR should publish topical environmental reports including reports on environmental pollution.

Georgia has adopted some legal and regulatory documents promoting the principles of public access to information, including environmental information. The Law on Licenses and Permits and the Governmental Decree on Approval of Provisions on Procedure and Conditions for the Granting Environmental Impact Permit adopted in 2005 substantially limit opportunities for the public to participate in environmental decision-making. With their public participation component, EIAs are no longer required for activities with a considerable impact on the environment and human health such as extraction of minerals, agriculture, pulp and paper production, leather and clothing industries and specific infrastructure projects. Furthermore, the EIA requirement may be waved (thus barring public participation in the relevant decision-making process)

in the event that a general State interest requires the prompt commencement of the activity. Investors are not obliged to provide the public with a non-technical summary and inform the public whether or not their comments have been taken into account. No provision is made for public participation in the screening or scoping phase of the EIA procedure.

Recommendation 3.4:

To ensure full compliance of Georgia with the requirements of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), the Ministry of Environment Protection and Natural Resources should develop, in cooperation with the representatives of the civil society, draft amendments to:

- (a) *The Law on Licenses and Permits, for submission to the Government for approval and subsequent submission to the Parliament for adoption;*
- (b) *The Governmental Decree on Approval of Provision on Procedure and Conditions of Granting Environmental Impact Permit, for submission to the Government for approval.*

In 2004, the Government approved the National Goals for General Education, which emphasize the role of environmental education. Although the Presidential Decree on the State Programme of Environmental Education provides for the establishment of a consultative council on environmental education, such a body has never been established. There is no cooperation arrangement between MEPNR and the Ministry of Education and Sciences. Contrary to the requirements of the UNECE Strategy for Education for Sustainable Development, no national action plan on ESD has been adopted. An inter-agency working group was established in 2008 to elaborate a national ESD strategy. There is no system of environmental education or ESD education for adults in Georgia. Nor is there is a system for training civil servants in environmental and ESD issues.

Recommendation 3.5:

The Ministry of Education and Sciences, in cooperation with the Ministry of Environment Protection and Natural Resources and other stakeholders, including NGOs and the mass media, should finalize, without delay, the National Strategy on Education for Sustainable Development and develop an action plan for the implementation of the UNECE Strategy on Education for Sustainable Development. It should also establish a Coordinating Council on Environmental Education and Education for Sustainable Development, involving all stakeholders, to make it an effective instrument for the promotion of the Strategy implementation.

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As decided by the Expert Group on Environmental Performance Reviews, those parts of recommendations from the first EPR of Georgia that are still valid, and their preceding conclusions are listed below.

In Georgia, there is currently no regular, systematic monitoring and data analysis; what little exists could be better characterized as surveillance. Without accurate data, there is no reliable information either for decision-making or for reporting. It is also impossible to comply fully with the laws that call for maintaining registers and cadastres. These tools are reliable only if a reliable monitoring system is in place. They will serve as a tool for public information. The Ministry of Environment and Natural Resources Protection is fully aware of this difficult situation, and it has, in cooperation with other institutions, drafted a programme to restart efficient monitoring based on the conclusions of the Ad Hoc Working Group on Environmental Monitoring of the United Nations Economic Commission for Europe.

EPR I - Recommendation 3.1:

(a) The Government should adopt the programme on monitoring drawn up by the Ministry of Environment and Natural Resources Protection and other institutions and should provide funding to carry it out. Monitoring of industrial hot spots and high-polluting facilities should be included in this programme as a matter of priority;

(b) After adoption, the Ministry of Environment and Natural Resources Protection and relevant institutions should harmonize the environmental norms and standards with international norms and standards, and should set up an appropriate system for environmental monitoring.

The Law on Environmental Permits stipulates that the public has 45 days following publication of information on an activity to provide its comments. However, NGOs, which generally have few human and financial resources, sometimes find it impossible to access all the necessary information, analyse it and respond within this time period. This is particularly a problem for NGOs based outside of the capital.

EPR I - Recommendation 3.2:

The Ministry of Environment and Natural Resources Protection should:

(a) Prepare an amendment to the Law on Environmental Permits to extend the 45-day time frame for public participation;

(b) Improve the exchange and dissemination of all information relevant to the permit procedure, including the environmental impact assessment and the results of the State ecological expertise, for example by creating a depository within the Ministry accessible to the public. (See Recommendations 1.3 and 1.4)

The Ministry of Environment and Natural Resources Protection has drafted a law on public access to environmental information and decision-making. The draft law fills gaps in Georgia's legislation for full implementation of the UNECE Aarhus Convention.

EPR I - Recommendation 3.3:

The Ministry of Environment and Natural Resources Protection should:

(a) Actively promote adoption by Parliament of the (draft) law on public access to environmental information and decision-making as soon as it is finalized;

(b) Following its adoption, widely publicize and distribute the law and support staff training and public awareness campaigns on the content of the law in order to facilitate its application.

Chapter 4: Implementation of international agreements and commitments

A recurring theme in the first and second EPRs is the development, often with the support of the donor community, of strategies and policies required by the participation of Georgia in various international environmental instruments, including MEAs, only to realize that these strategies are not adopted officially but remain "on paper". A case in point is the second draft NEAP, which was never adopted by the Government although it was finalized in 2007 with funding from UNDP.

Despite its participation in the international efforts to promote sustainable development, including its election as one of the 53 member States of the United Nations Commission on Sustainable Development between 2005–2007, Georgia does not yet have a national sustainable development strategy and there is no evidence that the country intends to develop and adopt one. This fact undermines Georgia's efforts to promote environmental, socio-political and economic sustainability and has attracted the attention of Georgia's key international partners, including the EU, who have repeatedly encouraged the country to develop and adopt a strategy as part of their assistance frameworks. At the same time, since the first EPR, Georgia has not submitted national reports on sustainable development to the CSD.

Recommendation 4.1:

The Government should:

(a) Strengthen active participation in international fora to improve environmental management and meet its international obligations and commitments;

(b) Comply with its reporting obligations to the United Nations Commission on Sustainable Development.

See also recommendation 1.2 (a) and (b) concerning the development and adoption of a national strategy on sustainable development.

The National Commission for Sustainable Development, which was first established in 1996 and reconstituted lastly in 2005, has never managed to fulfil its mandate, which was to develop a national strategy on sustainable development. Part of the problem lies with the fact that the composition of the Commission does not automatically adapt to changes in the composition of the Cabinet of Ministers, when appropriate. This leads the Commission to paralysis when its members change ministries or are no longer part of the Government. At the same time the Commission lacks a clear workplan with agreed timetables for the preparation of Georgia's NSSD.

Recommendation 4.2:

The Government, in order to allow the effective functioning of the National Commission on Sustainable Development (NCSD), should:

- (a) *Ensure that the composition of the National Commission does not require confirmation through formal acts (government resolutions) when changes in the composition of the Cabinet of Ministers occur;*
- (b) *Provide adequate funding for the National Commission's activities and specify the Commission's modus operandi, including a functional workplan with an agreed timetable for the development of the country's NSSD through comprehensive consultation with all relevant stakeholders.*

Recommendation 4.3:

The Ministry of Environment Protection and Natural Resources, in performing its role as the secretariat of the National Commission on Sustainable Development, should ensure that the Commission meets at regular intervals, as specified by Georgian law, and once a work plan is established, ensure that it is adhered to by all constituent parties of the Commission.

International cooperation has played a critical role in strengthening environmental protection efforts in Georgia since the first EPR and will continue to do so in the future as well. Due to the significance of international assistance and investment, it is imperative that donor-funded projects be coordinated as efficiently as possible. For this purpose, the first EPR recommended that the then Ministry of Environment and Natural Resource Protection, in taking the lead in identifying environmental programmes and projects that may need external support, should establish a project preparation unit to act as a focus for coordination with donors and international financial institutions. After briefly creating such a project coordination unit in response to Recommendation 4.4 of the first EPR, the Unit was abolished in 2008. Yet cases have been observed of loss of coordination, overlaps between concurrent and successive projects, as well as loss of institutional memory with regard to previous projects when designing new ones.

Recommendation 4.4:

The Ministry of Environment Protection and Natural Resources should elaborate a transparent mechanism and designate a lead unit to improve project coordination and enhance the Ministry's ability to fully utilize past experience when designing new projects suitable for external funding.

International cooperation has played and continues to play a critical role in supporting environmental protection efforts in Georgia. In particular, cooperation through multilateral environmental agreements (MEAs) has been an important element of environmental cooperation in the country. Georgia has become a party to many global and regional MEAs, several of which have been developed under the aegis of UNECE. It has also entered into subregional and bilateral agreements, in particular to protect enclosed seas and other common resources. This in turn has informed its environmental policies and actions. Georgia should continue to proceed with the process for accession to major MEAs.

Recommendation 4.5:

As soon as appropriate capacities for implementation are available, the Government should accede to the following conventions:

- *The UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes;*

- *The UNECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention);*
- *The UNECE Convention on the Transboundary Effects of Industrial Accidents;*

The Government should also accede to the following Protocols:

- *The relevant Protocols to the Convention on Long-range Transboundary Air Pollution;*
- *The Protocol on Pollutants Release and Transfer Registers to the Aarhus Convention;*
- *The Protocol on Water and Health and the Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes;*
- *The Protocol on Strategic Environmental Assessment to the Espoo Convention.*

* * * * *

As decided by the Expert Group on Environmental Performance Reviews, those parts of recommendations from the first EPR of Georgia that are still valid, and their preceding conclusions are listed below.

A number of initiatives have been taken to make international environmental assistance and financing more effective. These include the establishment of the Department of Environmental Policy and the establishment of the TACIS Coordination Unit within the Ministry of the Economy. However, communication with donors has been insufficient. As a result donors' and international financial institutions' efforts have overlapped in some areas, e.g. water and public participation, while other key issues, e.g. hazardous waste and chemicals, have not received adequate attention. Concerns have also been raised that their activities in Georgia have influenced or driven Georgia's national priorities rather than supported them.

One consequence of this is a lack of ownership by the relevant ministries and therefore a lack of follow-through and implementation. For example, a number of national policy strategies and action plans have been developed with international support, often by foreign experts. While these may be of high quality, they have often failed to generate national commitment. Many have never adopted.

EPR I - Recommendation 4.4:

The Ministry of Environment and Natural Resources Protection should take the lead in identifying environmental programmes and projects that may need external support. In order to accomplish this, it should take the following steps:

- *Establish a project preparation unit to act as a focus for coordination with donors and international financial institutions;*
- *Set priorities for external funding on the basis of domestic problems and needs, and communicate these priorities clearly to the donor community and international financial institutions;*

Chapter 5: Economic instruments and expenditures for environmental protection

Georgia is a lower middle income country that has as its legitimate major policy priority to achieve sustained economic growth and, related to this, to substantially reduce poverty. The Government's strategy is largely based on establishing a liberal and largely deregulated market economy and introducing stringent measures designed to minimize corruption and rent-seeking. Environmental policy does not play a role in this strategy; rather, the Government appears to be postponing adequate environmental protection to a later date. Experience shows, however, that it is generally much more costly to address environmental degradation later than to prevent it in the first place. Nor is there much justification for failing to address at an early stage those sources of pollution that have significant adverse effects on health, e.g. due to an insufficient quality of drinking water or air pollution (2008 Commission on Growth and Development). A case in point is the water and sewage pipe failures, which led recently to outbreaks of waterborne diseases such as diarrhoea and hepatitis in certain regions.

The authorities appear to be concerned about the potentially adverse consequences of more stringent environmental policies on domestic companies and FDI inflows. Yet environmental compliance costs are but one of many factors (such as exchange rates, labour costs, labour skills and the quality of infrastructure) that shape a country's competitiveness. And these other factors have, in general, a much larger weight in location decisions of firms than environmental policy stringency.

In Georgia, however, pollution taxes, instead of being substantially reformed so that they could become an effective pollution abatement and control instrument, were abolished by the Government in 2005. Existing command-and-control policies have remained weak, given the serious problems with emission monitoring and enforcement of performance standards. The upshot is that the polluter-pays principle is hardly applied in Georgia.

Recommendation 5.1:

The Ministry of Environment Protection, in cooperation with the Ministry of Economic Development, the Ministry of Finance and other relevant ministries, should:

- (a) Review the existing command-and-control approach to pollution abatement and control with a view to ensuring (i) more effective monitoring and enforcement of pollution standards; (ii) a focus on major pollutants; and (iii) environmental relevance of existing emission norms;*
- (b) Review the existing system of fines to create adequate incentives that deter emitters from producing too many emissions, assuming appropriate monitoring and enforcement of environmental standards;*
- (c) Develop a policy paper on the feasibility of the introduction of pollution taxes for major pollutants, as a basis for the creation of stringent incentives for more environmentally friendly behaviour;*
- (d) Review motor vehicle-related taxes, with a view to making them supportive of environmental protection.*

From an environmental policy perspective, it is very important to ensure that the national economic development strategy explicitly take into account the linkages between economic activity and the environment. This is not the case in Georgia. The overall aim must be to optimize the often inevitable trade-offs from an overall societal perspective. In this context, it is also important to exploit the manifold substantial opportunities for jobs and profits offered by “green” products and services and to realize that weak environmental standards are, in general, not a decisive factor - or a factor at all - in location choices for foreign direct investment. Ensuring the appropriate representation and integration of environmental policy concerns in national or sector-wide development strategies (such as for forestry, energy, manufacturing and transport) requires the establishment of supportive institutional arrangements that can promote this “mainstreaming” of environmental protection. A major objective should be to create a shared vision of a long-term strategy on how to foster competitiveness and structural change in a context of adequate environmental protection as an integral part of overall sustainable development. Here, there is a need to ensure that economic and environmental policy measures, rather than reflecting autonomous decisions of specialized Government entities, are based on an intensive dialogue between competent ministries, industry, and research institutions.

Recommendation 5.2:

The Government should:

- (a) Establish an institutional platform – in the form, for example, of a “round table” – that allows at an early stage for a systematic dialogue concerning environmental impacts of actual or planned economic policies on the one hand and the economic impacts of actual or planned environmental policies on the other;*
- (b) Ensure that all key actors and institutions are involved in this dialogue, i.e. competent ministries, the business sector, civil society, research institutions, and other stakeholders.*

The provision of local utility services (e.g. water supply and sanitation, electricity) and their financial sustainability depends on the extent to which revenues can ensure full cost recovery. Revenues, in turn,

depend on the unit price of services supplied as well as the collection rates for bills to be paid by customers. Prices for final use of electricity and water should not only be cost-reflective but should also create incentives for households and firms to use these resources in an economical and efficient manner. However, for price signals to play their role, there must be an accurate metering system that allows consumers to control their resource use; collective meters are a blunt instrument in this respect. Yet metering of consumption must then be followed up by effective enforcement of payments for services supplied. At the same time, there is a need to address the problem of affordability of energy and water consumption by low-income households.

Electricity prices appear to be at levels that are broadly cost-reflective in combination with collection rates that have improved significantly. The situation is quite different in the water supply and sanitation sector, where the services provided are to a large extent still underpriced (if there is a price at all) and where there is considerable scope for improving collection rates. Local budgets therefore generally include subsidies to utilities, but the overall revenues of utilities are largely insufficient for financing the rehabilitation – let alone the extension of the water sector infrastructure. At the same time, water abstraction for irrigation and use by thermal and hydropower stations is not only no longer subject to a corresponding permit; it can also basically be done at a zero price, which in turn leads to a squandering of water resources.

Recommendation 5.3:

The competent central and local governments, including the regulatory agency for the energy and water sector (GENRC), should:

- (a) Eliminate in a transparent and gradual fashion any existing price subsidies for utility services, notably water supply and sanitation but also waste and energy services, taking into account the associated need for targeted social assistance to lower-income households;*
- (b) Promote, in cooperation with the corresponding utilities, the progressive installation of individual meters for electricity and water consumption;*
- (c) Set tariffs for water abstraction at a level that supports sustainable water resources management.*

The recent introduction of a medium-term expenditure framework should help make public expenditure more efficient as well as strengthen the link between the Government's policy priorities and the annual budget. There is a need, however, to better recognize the importance of environmental protection for the national economy and society and to reflect the associated increased resource needs in medium-term budget planning. In particular, the Government budget funds allocated to environmental investment projects have been very small. Most projects are to a large extent financed from foreign donors (bilateral or multilateral). But attracting more funds from donors will also require raising domestic environmental spending to adequate levels. Given that environmental protection is a cross-sectoral issue, much would be gained from (better) integration of environmental policy issues in sectoral development strategies and related foreign assistance. Some examples are the development of the energy sector, the forest sector, water supply and sanitation, and road transport. In this context, it is also important to create adequate incentives for private sector environmental spending through the strict application of the polluter-pays and user-pays principles.

Recommendation 5.4:

- (a) The Government should give greater priority to environmental spending within the medium-term expenditure framework;*
- (b) In this context, the Ministry of Environment Protection and Natural Resources, in cooperation with other competent Government spending units, should define medium-term priorities and objectives for environmental policy across major sectors of the economy and prepare estimates of associated costs and major benefits that would feed into the preparation of medium-term Government expenditure plans;*
- (c) The Government should create incentives designed to mobilize adequate private sector resources for environmental protection by strict application of the polluter-pays and user-pays principles;*
- (d) The Government should also instruct the Department of Statistics to conduct regular surveys on pollution abatement and control expenditures by major emitters in industry and by other economic sectors.*

Chapter 6: Sustainable management of water resources and protection of the Black Sea

Although some improvements in the water supply and sanitation sectors are visible, shortcomings still exist. The establishment of the Water Supply Regional Development Agency and the joining of the local water authorities to the two big companies have been very good first steps towards the improvement of the water supply and sanitation situation of the country. However, critical challenges remain.

A sustainable integrated water resource management requires a strategic approach including adapted and sound technologies, good governance of the water sector, a sufficient financing and regulating system, due consideration of the human factor and adequate training, good networks and communication, and last but not least efficient inter-sectoral cooperation.

A safe drinking water supply and the protection of drinking water sources are a high priority for the Government. The development of water supply and the protection of drinking water would have to be accompanied by the development of the sanitation service and the introduction of mandatory treatment of wastewater.

Recommendation 6.1:

The Ministry for Regional Development and Infrastructure should promote the adoption of the policy paper for the development of water supply and sanitation sectors and thereafter speed up the development of the required action plan, which will include measures, priorities starting with the hot spots, time tables and estimated financial requirements and resources.

Recommendation 6.2:

The Ministry of Agriculture and the Ministry for Regional Development and Infrastructure should take care that self-monitoring and state control of water supplies are urgently enforced to ensure the safety of the population and to provide adequate training for the personnel.

Good governance in the water sector implies sustainable, extensive and long-term safeguarding of water resources based on intense cooperation between the Government, communities, private sector and the civil society. The primary responsibility for ensuring the sustainable water management of water resources rests with the Government. Reforms are a dynamic and iterative process, and not all necessary reforms can be carried out at the same time.

For good water resource governance, it is also important to have an integrated database on water resources based on data from structured State monitoring, an adequate permit system with precise feasible requirements, which have to be controlled by relevant Government bodies, and credibly enforced self-control of permit owners.

Overall, the institutional reforms in Georgia since the last review have changed responsibilities and seemed to be a step into the right direction, especially with the establishment of legal entities such as the MEPNR National Environmental Agency MEPNR and the MRDI Water Supply Regional Development Agency.

The legal framework of the water sector requires fundamental revision. Georgia's water-related legislation is inconsistent and fragmented through a wide range of legal acts, and the Law on Water is very weakly linked to all the other laws. It fails to provide sufficient notice of applicable requirements, and makes it difficult to assess compliance.

Recommendation 6.3:

The Ministry for Environment Protection and Natural Resources should:

a) *Ensure that the new Water Law framework reflects the protection and sustainable management of all water resources (including groundwater and the territorial Black Sea) by introducing principles of water basin management based on the current institutional framework;*

b) *Develop a Georgian national action plan (NAP) for the protection of the Black Sea based on the principles of the regional Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea, by taking into consideration hot spots, required measures for improvements, a timetable and the financing funds as well as measures for water supply and sanitation;*

c) *Develop a strategy and action plan for further modernizing and upgrading the monitoring network in line with international guidelines and best practices to assess progress in achieving environmental policy targets. In detail, this means:*

- *Enlarging the number of parameters that have to be controlled and introducing biological monitoring into surface water bodies;*
- *Establishing more hydrological monitoring stations and sampling points;*
- *Linking environmental quality data with emission data by enterprises to establish cause-and-effect relationships to be reported to compliance control;*
- *Training personnel in proper handling of appropriate analysis equipment and ensuring a high quality of laboratory reagents.*

The financing instruments are on the one hand indispensable for mobilizing funds for new water treatment plants and covering the costs of maintenance and water management. On the other hand, fees, taxes and penalties are key control instruments.

Rational use of financial resources must be the primary priority. Usually, the water tariffs would recover service costs. However, they should also remain affordable for the wider public due to the social importance of access to safe water and sanitation for ensuring public health and welfare.

Pollution charges or taxes for the abstraction of water, even at a low level, can also support sustainable water management because they provide some incentive and may be helpful in raising awareness of water pollution. In case of pollution charges, an administration as part of an overall system of regulation is needed and a well-developed monitoring and measuring system has to be present.

In Georgia, the tariff policy for households is inadequate and the collection rate of user fees is low. The financial situation of the water supply and sanitation is both a cause and a consequence of the bad conditions of the infrastructure and the insufficient services. The current financial resources will lead to a further deterioration of the existing infrastructure. Further delays will generate additional costs, making it more difficult and cost-intensive to restore a satisfactory level of water supply and sanitation services.

Taxes on water pollution and surface water abstraction were phased out in Georgia in 2005.

Recommendation 6.4:

The Ministry for Regional Development and Infrastructure should:

- *Improve the collection rate of water bills for industrial companies and households;*
- *Adopt payment on actual consumption by introducing water metering, also in apartments;*
- *Raise the annual water bill to the highest affordable level, followed by annual increases according to nominal GDP growth;*
- *Increase the State budgetary resources for investment in the water sector.*

Many processes in the water management are participative and require very good communication between the parties concerned. The communication process is part of project management, and must be as sustainable and integrative as the project target itself. Public awareness is a precondition for sustainable resource management, and is closely linked to the need to provide the public with understandable information.

Recommendation 6.5:

The Government should modify the mandate of the Ministry of Environment Protection and Natural Resources to include integrated water management planning and responsibility for ensuring the coordination of actions in the water sector, in particular regarding information on water.

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As decided by the Expert Group on Environmental Performance Reviews, those parts of recommendations from the first EPR of Georgia that are still valid, and their preceding conclusions are listed below.

Georgia is rich in available ground and surface water resources, but the infrastructure and management systems currently in place to use these resources effectively and sustainably are severely constrained. Surface water quality may have improved to a small degree over the past decade due to the dramatic reduction in industrial productivity and subsequent pollutant discharge. Unfortunately, the risks of water-borne disease and other negative health impacts have increased due to breakdowns in water infrastructure, and reduced prevalence of drinking-water treatment. More than 80% of urban wastewater systems fail to provide even the most rudimentary treatment. Water utilities are unsuccessful at raising sufficient revenue from water tariffs to meet even basic operating expenses for energy and treatment chemicals. Incentives for mobilizing capital from public and private sources are lacking. Legal and policy instruments available to local and national authorities are insufficient to deter further degradation.

Given the scope of these difficulties and serious budget constraints in the country, recommendations for sector improvement need to be both feasible and focused on areas that can make a real difference in the near to mid term. Some promising donor-supported activities are under way to address drinking-water quantity and quality, watershed and transboundary water management, and protection of the Black Sea.

Given the expense of treatment chemicals and the high cost of energy faced by water utilities, it is reported that 70% of utilities do not disinfect their water supplies. With the prevalence of cross-connections (i.e. mixing) with raw waste-water collection systems, water-borne disease outbreaks are on the rise, and health risks from contaminated water are significant. Public officials and utility representatives should try all legal and policy means to correct this immediate health risk. It is acknowledged, however, that some systems may not be able to maintain an adequate disinfection residual due to elevated natural or human-induced organic constituents. Severe taste and odour concerns, or fears over dramatic increases in disinfection by-products could arise. In these cases, alternative sources of water (including bottled water, fuel subsidies for boiling water, and tanker trucks) should be found to the extent practical.

EPR I - Recommendation 7.1:

The Ministry of Agriculture and local governments should ensure that:

- *Drinking water utilities disinfect their water supplies with chlorine or other chemicals so that sufficient disinfection residual is maintained within distribution systems to ensure microbiological safety;*
- *Utilities that do not disinfect are justified in this decision; for example those systems tapping protected wells or springs with very short, protected distribution networks.*

Good watershed-based planning can assist in the implementation of more cost- and health-effective water services and water pollution control. Positive outcomes and processes (such as stakeholder involvement, better monitoring and critical needs assessment) that have shown to be promising in EU and United States-financed pilot projects should be seriously considered for wider application. The role of the Ministry of Environment and Natural Resources Protection in partnerships in these pilot schemes could be strengthened to foster dissemination and sustainability. Inter-ministerial working groups could be formed as one way to expand cooperation and engagement on pilot schemes. Regulations to accelerate the adoption of improved approaches, including the formation of watershed- or river-basin-based organizations could then be developed. Finally, opportunities should be sought (to the extent politically feasible) for engagement by senior officials and policy makers in Georgia with their counterparts in Armenia and Azerbaijan on transboundary water issues.

EPR I - Recommendation 7.3:

The Ministry of Environment and Natural Resources Protection should:

- *Undertake a policy review on the use of watershed-based planning for the implementation of improved water services and water pollution control;*
- *Draft regulations, including incentives, for watershed-based planning; and*
-

This coming year will see a number of positive initiatives to improve the country's understanding of near-coastal water quality and threats. Oil spill contingency plans will be developed; the institutional framework for integrated coastal zone management will be strengthened; and it is hoped that new port and energy facilities will be designed with greater environmental protection. The next step, attracting investments in critical water and waste-water infrastructure, needs to be taken but will be challenging. Taking the experience of other regional programmes (such as the Danube and Baltic Sea efforts), it is recommended that Georgia should move forward with developing a national action plan. The plan would examine needed improvements in municipal and industrial facilities, and provide a consistent basis for evaluating investment needs and benefits from both human health and ecological perspectives. A draft plan has been developed and received some Parliamentary review, but more serious attention to making this a centrepiece for investment attention should be considered.

EPR I - Recommendation 7.4:

The Ministry of Environment and Natural Resources Protection should accelerate preparation of a Georgian national action plan for the Black Sea.

Water management should also take into consideration good irrigation practices and the introduction of environmental sound technologies (see recommendation 11.2).

Chapter 7: Waste management

Waste management requires urgent attention from decision-makers. There has been hardly any improvement since 2003, and the current situation is dramatic. There are no general policies or plans of action; the existing legal framework is inadequate; and the institutional set-up poses problems due to a lack of staff and funds. Waste continues to be disposed of inappropriately. This situation has a visible aspect – for instance waste on river banks or the clouds of contaminated smoke arising from dumpsites – and an invisible aspect, namely, the contamination of soil and water. The situation has a negative impact on the livelihood and living standards of the broader population and carries the potential for severe public health impacts. Furthermore, it appears to undermine Georgia's stated aim to become a major tourist destination, since the lack of appropriate solid waste management constitutes an obstacle to the development of the sector and may affect tourists concerned about environmental conditions in their choice of destination.

As a result of the reduced attention devoted to waste management since 2003, the recommendations from the first Environmental Performance Review in 2003 are still valid, with the exception of recommendation 6.6 and recommendation 6.2 (b). Those recommendations that have not been adequately implemented should be considered as even more urgent with the passage of time. Some projects are being prepared to address some of the issues, but recent history shows that it might take quite a long time to move from project proposals to concrete activities on the ground. Keeping the recommendations of the first EPR valid in the second EPR can be viewed as a challenge to the authorities to recuperate six years of delay in starting implementation.

Part of the current difficulties in managing waste arises from the lack of a Framework Law on Waste and the fact that legislation on solid waste is dispersed, not harmonized. Another difficulty is the lack of updated information required for monitoring and controlling the solid waste produced and managed, and this can be circumvented by the compulsory participation of different actors. Projects are under preparation for a legal reform of the waste sector, and this is the opportunity to clarify the requirements, provide law enforcement agents with clear mandates and facilitate management.

Recommendation 7.1:

When developing the new waste framework law and related legislation, the Ministry of Environment

Protection and Natural Resources should:

- *Take into consideration existing waste legislation, and identify and clearly state sub-law regulations needed for the effective implementation of the legal framework;*
- *Include a clear classification of hazardous waste and requirements for each industrial site to report on hazardous waste by type of waste;*
- *Include the obligation of transferring hazardous waste to licensed operators once the market will allow it;*
- *Ensure that appropriate regulations aimed at enabling and strengthening law enforcement activities of the Inspectorate of Environmental Protection are formulated and put forward for adoption;*
- *Establish monitoring and reporting obligations for all entities dealing with waste production and management;*

MEPNR is vested with power to undertake key activities and counts with structures and staff to perform them. Some efforts have been done to increase the efficiency and effectiveness of the services but some crucial institutional organization improvements remain to be done. Some of these institutional reforms have direct impact on waste management.

Recommendation 7.2:

The Ministry of Environment Protection and Natural Resources should

- (a) Strengthen the capacities of the Inspectorate of Environmental Protection by increasing the number of inspectors who can be in part drawn from the current first responder staff;*
- (b) Provide new and existing inspectors with training on waste and water inspections;*
- (c) Modify the status of the existing Nuclear and Radiation Safety Service in order to strengthen its regulatory, technical/advisory and inspection role;*
- (d) Consolidate responsibilities for the management and disposal of radioactive waste through the establishment of a Radioactive Waste Management Agency under MEPNR authority;*
- (e) Increase MERNP monitoring capacity by creating databases on waste production and waste operators, and boost capacity to use such information for decision-making and long-term planning.*

Household waste continues to be poorly managed, and municipalities struggle with scarce funds and technical capacity to fulfil their obligations and comply with environmental legislation. Efficient and cost-effective waste management in Georgia requires inter-municipal, regional and national planning. DWCSM is preparing a twinning project with EU institutions with a view to elaborating a waste management plan. A major aim of this plan will be to foster cooperation between districts and regions, and maximize cost-effectiveness of waste management infrastructures, namely by taking into consideration the coverage area of needed new infrastructures, such as separation centres, temporary storage and recycling and energy production facilities. Despite the rough estimates it contains, the 2007 waste inventory constitutes a baseline on which the waste management plan can be built.

Recommendation 7.3:

- (a) The Ministry of Environment Protection and Natural Resources should urgently elaborate a national waste management plan;*
- (b) The Government should provide municipalities with technical assistance and training on technology and management skills for adequate solid waste management;*
- (c) The Government should help municipalities to modernize their household waste management practices.*

In recent years, there has been an evolution in the waste management paradigm that was accompanied by technology development. Currently, waste is a commodity and, as such, Georgia's environment and finances can benefit from the establishment of a solid waste market, including in the form of public-private partnerships.

Recommendation 7.4:

The Ministry of Environment Protection and Natural Resources, in cooperation with the appropriate government bodies and municipalities, should:

- (a) Adapt economic instruments already tested in different countries to promote a solid waste market, private companies dealing with different types of waste, and the establishment of inter-municipal companies and public-private partnerships; as well as encourage private investment in waste management and recycling infrastructures;*
- (b) Use fiscal incentives and tariffs to promote the investment of industries in cleaner technology;*
- (c) Apply the polluter-pays principle to waste management, and set the costs of the management of specific types of waste (hazardous waste, packaging, etc) at the charge of the producer/importer;*
- (d) Do its utmost to gather funds to rehabilitate contaminated sites;*
- (e) Invest part of the revenues of recycling and energy production from waste to promote the reduction of the amount of waste produced, awareness campaigns and other direct actions on specific types of waste, using lessons learned and best practices from other countries (e.g. best practices on the reduction of the number of plastic bags).*

* * * * *

As decided by the Expert Group on Environmental Performance Reviews, those parts of recommendations from the first EPR of Georgia that are still valid, and their preceding conclusions are listed below.

A new law on waste management has been prepared and is now being considered by the Government. The draft law covers the classification, collection, transport, recycling and reuse as well as disposal of municipal and hazardous waste. It also contains provisions for health hygiene norms and standards for different kinds of waste management, the movement of hazardous waste, and a reporting system for waste generation. There are already three major laws on waste management and hazardous chemicals; they have not been applied because the necessary regulations were not developed.

In addition, there is no comprehensive governmental strategy or policy on municipal and industrial waste management, hazardous substances and contaminated sites. There is also no action plan or programme on waste management.

EPR I - Recommendation 6.1:

- (a) The Ministry of Environment and Natural Resources Protection should promote the adoption of the draft law on waste management and its enforcement through the development of regulations, technical standards and norms for this law and other existing legislation on waste management;*
- (b) The Ministry of Environment and Natural Resources Protection, in coordination with other relevant ministries, should prepare action plans for the management of waste, including the rehabilitation of contaminated sites. This action plan should be integrated into the strategy for sustainable development.*

There is no monitoring for air, soil or groundwater quality around landfills. Geological and physical characteristics and conditions are not investigated before landfills are constructed, and the landfills are not managed in an environmentally sound manner. The majority of dumps are now almost full, and their extension or the construction of new sanitary landfills, processing plants or incineration facilities is needed. In many cases municipal waste is dumped together with industrial waste and even with medical waste, without any analysis of the adverse effects on the population and the environment.

EPR I - Recommendation 6.2:

The Ministry of Environment and Natural Resources Protection, in cooperation with the municipalities, should:

- (a) Develop an information management system for municipal waste generation, handling and recycling;*

- (b) *Draw up an inventory of legal and illegal landfills;*
- (c) *Monitor air, groundwater and soil in the vicinity of landfills, with priority given to those that are situated near big cities;*
- (d) *Support the construction of sanitary landfills, processing or incineration facilities, on the basis of positive environmental expertise and environmental impact assessment; and*
- (e) *Raise public awareness about the environmentally sound management of municipal waste.*

There is no classification system for industrial waste, and it is therefore difficult to gather and process information on waste generation, accumulation, treatment, recycling or disposal. In addition, the chemical composition of accumulated waste is not known, making it impossible to apply proper methods of treatment. Further research is necessary to draw up a detailed inventory of waste in order to propose a solution for its sound management.

EPR I - Recommendation 6.3:

The Ministry of Environment and Natural Resources Protection, in cooperation with relevant stakeholders should:

- (a) *Introduce and implement a classification system for industrial waste and hazardous chemicals, including pesticides, on the basis of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS);*
- (b) *Develop a permitting system for hazardous waste and draw up an inventory of major sources of hazardous and industrial waste in order to introduce the technologies for its recycling or environmentally sound treatment;*
- (c) *On the basis of the above, start the rehabilitation of abandoned industrial waste sites and, where technically and economically possible, recycle industrial waste as a secondary raw material.*

The biggest environmental threat is the storage site of hazardous chemicals, including pesticides, in the Iagluji Mountains (Marneuli region). Unfortunately, there are no precise data on the quantities and composition of the hazardous chemicals stored at the site. There has been no analysis of the groundwater, soil and air nearby; and there are no fence or warning signs around the storage area. No risk assessment has ever been carried out.

EPR I - Recommendation 6.4:

The Ministry of Environment and Natural Resources Protection, in cooperation with relevant stakeholders and municipalities, should:

- (a) *As a first and most urgent step, take appropriate measures to protect the population and to limit access to the Iagluji site;*
- (b) *Develop a plan for the environmentally sound management of the site that also identifies the institutions that will be responsible for carrying it out;*
- (c) *Carry out a risk assessment of the site in cooperation with the Ministry of Labour, Health and Social Affairs and other relevant institutions;*
- (d) *Identify the quantities and composition of the hazardous chemicals that are buried at the site; and*
- (e) *Develop a plan for its rehabilitation.*

Special attention should be given to the sound management of medical waste, including its separate collection, disposal and storage. At present medical waste is disinfected at the place of generation. The most dangerous anatomical medical waste is collected separately, transported to special centres and buried at cemeteries. Nonanatomical medical waste, however, in most cases is dumped with municipal waste without any separate treatment.

EPR I - Recommendation 6.5:

The Ministry of Labour, Health and Social Affairs, in cooperation with the Ministry of Environment and Natural Resources Protection, should:

- (a) *Organize the separate collection of medical waste, including non-anatomic medical waste, and provide for its environmentally sound disposal or incineration throughout the country; and*
- (b) *Train personnel in the environmentally sound management of medical waste.*

Chapter 8: Risk management of natural and technological/anthropogenic hazards

The Government, despite the lack of funds, expertise, and human resources, strives to improve the country's disaster preparedness. Notwithstanding the lack of strategic documents to regulate and harmonize work in this field, a number of regulations and decisions have been developed in the last few years. Although DRM policies and practices in Georgia lack a comprehensive and sustainable approach, there is an understanding at all levels of the need for a more coordinated approach, systematized risk monitoring and, most important, for the development of a strategic document with clearly set goals, priorities and timeframe.

As it adopted the Hyogo Framework for Action (HFA) in 2005, disaster risk reduction has become a priority for the Government. However, there is little evidence at present that the Government views DRR as an effective and efficient means of reducing poverty and fostering climate change adaptation. There is an urgent need to fill the educational and skills gaps of the staff of the State agencies that are responsible for introducing DRR in their respective areas. An additional issue requiring immediate intervention is the education and preparedness of the population, at household, community and national levels. To improve the general perception of DRR in decision-making at the national level, it is important to deal with such problems as the shortage of internal financing, low realization of long-term economic advantages of investing in risk reduction over response and recovery, and continuing reliance on external humanitarian aid and relief programmes.

The starting point for the achievement of tangible results ensuring positive DRM changes in Georgia could be the development of a national strategy document which would serve as the basis for sectoral, budgeting, and institutional decisions. If properly developed, funded and implemented, the National Disaster Risk Management Strategy, supplemented by a National DRM Action Plan, would become the key document on disaster risk management; it would accelerate development and adoption of a series of legislative and regulatory acts on structural and non-structural safety, stimulation and involvement of the private sector, NGOs, State and independent media, academic institutions, and community-based organizations in the promotion of DRR principles at all levels.

Recommendation 8.1:

The Government should develop and adopt a national strategy on disaster risk management (DRM) complemented by a relevant national action plan taking into account disaster risk reduction and climate change adaptation measures, in compliance with national commitments and international instruments recognized by Georgia, especially the Hyogo Framework for Action (HFA).

Having adopted the Hyogo Framework for Action (HFA) in 2005, disaster risk reduction has become a priority for the national government, especially with regard to coordination, involvement of a wide variety of ISDR partners, including national ministries and institutions, NGOs, academic institutions, civil society, the private sector and mass media.

At present, however, the MIA Emergency Management Department is hardly involved in the DRM cycle from beginning to end, including disaster prevention and mitigation activities. Among the various governmental and non-governmental agencies and institutions which participate in different phases of the disaster risk management cycle there, none is involved in the whole DRM process, i.e. covering preparedness, prevention, mitigation, response, and recovery. Efforts are scattered in this sector despite a unanimous understanding of an urgent need for better coordination which will not only help avoid economic losses but will also save human lives.

Recommendation 8.2:

The Government should establish a fully functional national coordination mechanism or a national platform by strengthening the existing coordination mechanism on disaster risk management with the participation of all relevant stakeholders.

To be able to take measures aimed at reducing disaster risk and mainstreaming DRR measures into national policies and strategies, including poverty reduction, climate change adaptation and economic development, it is most important to make the best use of existing data and to provide conditions for new data collection, processing and dissemination to be used well in advance of disasters. Today, despite the ongoing activity, this process is scattered and data sharing leaves much to be desired. The DRR community pays particular attention to urban areas vulnerable to both natural and technological hazards. Tbilisi with its growing population lies in an area of high seismic activity and is prone to flood and landslide hazards, but also to technological hazards due to increased economic activity.

At the same time, Georgian scientists are forced to rely on obsolete analogue equipment, lack funds and adequate Government support, and do not manage to attract and retain young specialists, thus hindering the development of this very important sector. Unfortunately, at present risk assessment in Georgia has been given lower priority compared to disaster response and recovery.

Recommendation 8.3:

The Government should identify hot spots in urban areas and strengthen monitoring, forecasting and early warning of natural and technological disasters in compliance with international requirements.

The Ministry of Environment Protection and Natural Resources should establish an analytical center with adequate capacity to create and maintain a database of geological, seismological and meteorological data that is easy to use and accessible to the public.

Although the Government has taken steps to improve legislation on disaster preparation, current legislation does not have provisions for prevention and mitigation. Although various legal documents clearly mention the responsibilities in case of natural or technological disasters, they do not specify measures for disaster reduction.

Recommendation 8.4:

The Government should improve the legal basis on for major hazard prevention in compliance with international requirements.

Chapter 9: Forestry, biodiversity and protected areas

Despite the fact that since the 1990s, many Governments have considered forestry policy and forestry management to be priorities, Georgia still has not adopted a State policy document for forestry. Several attempts have been made to reform the forestry sector and to draft the forestry policy document, but all of them without any success.

A lack of clear Government vision on the role of forest in the country's economy and people's everyday life, lack of awareness of ecological, cultural, social, recreational values of forests, conflicting views of forests, and deprivation of local communities from decision-making process in forestry management has led to degradation of forest ecosystems and the undermining of the well-being and prosperity of present and future generations.

Recommendation 9.1:

The Government should:

- (a) Approve the State forestry policy document and submit it to the Parliament for adoption;*
- (b) Develop and adopt a national forestry programme and an action plan, and ensure their implementation.*

The 1999 Forest Code is still the main legal act in forest legislation. However, provisions of many laws and legal acts that have been adopted since then are not in line with the provisions of the Code. Such legal inconsistencies preclude from an effective law compliance and enforcement. Despite the number of regulations developed and approved to implement the Code, there are still some important gaps in forest legislation to be filled in, such as a law on the privatization of Georgian forests.

Recommendation 9.2:

The Ministry of Environment Protection and Natural Resources should develop draft amendments to the laws and legal acts relating to forest protection and forestry in order to ensure their consistency while applying the principles of sustainable forest management, and submit them to the Government for approval and then to the Parliament for adoption.

The national forestry management system has undergone few reforms and structural changes. The State Forestry Department was incorporated into the Ministry of Environment Protection and Natural Resources. All the reorganizations of the State Forestry Department since 2003 have resulted in a fourfold decrease in staffing. The FD lost all economic functions, such as afforestation, forest protection measures and forest road construction.

Recommendation 9.3:

The Government should strengthen the institutional capacity of the Forestry Department. Its staff, especially forest guards, should be adequately equipped and provided with regular training.

Since the first EPR, the number of protected areas and their total territory have increased. The State Department of Protected Areas, Nature Reserves and Hunting Farms joined MEPNR as the Department of Protected Areas. Later on, it was turned into the Agency of Protected Areas (APA) under MEPNR. The APA budget has been increasing steadily during the last three years.

Despite these positive achievements, some weaknesses of the PA system are needed to be addressed, namely a lack of biodiversity inventory, the low level of research, monitoring and restoration measures, and the absence of biological corridors between protected areas. These and other issues are included in the draft national PA system development strategy and action plan, developed in 2008.

Recommendation 9.4:

The Government should adopt the draft national protected areas system development strategy and action plan and ensure their implementation and financing.

Despite the legal provisions, quotas for game species are usually set without appropriate research into game numbers and population dynamics. This practice hinders the sustainable use of game species and their restoration.

Recommendation 9.5:

The Ministry of Environment Protection and Natural Resources should ensure that the quotas for game species are based on the results of appropriate research on game numbers and population dynamics.

* * * * *

As decided by the Expert Group on Environmental Performance Reviews, those parts of recommendations from the first EPR of Georgia that are still valid, and their preceding conclusions are listed below.

To date, there are no management plans, except for the inventories of most of the protected areas. The Law on Protected Areas stipulates that management plans must be drawn up. The current economic situation, along with the lack of institutional clarity, makes it difficult to enforce the law and implement protection measures. At present protection is concretely implemented only in those protected areas that have gained international support through particular projects. The other protected areas are neglected. Among these neglected areas are less valuable areas that could serve as bio-corridors. These also need to be included in the overall strategic planning for protected areas.

EPR I - Recommendation 8.3:

(a) The Ministry of Environment and Natural Resources Protection, together with the State Department for the Management of Protected Areas, should:

- Develop a strategy for protected areas that, inter alia, implements the requirements of the Pan-European Biodiversity and Landscape Diversity Strategy, climate change action plans, and bio-corridors;*
- Develop management plans for all protected areas as stipulated in the Law on Protected Areas;*

(b) The State Department of Forestry, in cooperation with the Ministry of Environment and Natural Resources Protection, should develop a general strategy for the sustainable use of forests, ensuring the accomplishment of all forest functions and their stable regeneration.

Valid recommendations from the first Environmental Performance Review not covered in second EPR chapters

CHAPTER 5: Air management

In Georgia the emission limits for enterprises are set as a MAC derivative. Direct emission standards in the form of permissible concentrations in flue gases (mg/m³), permissible losses of resources (mg/ton of resources) or waste generation of the technology process (mg/ton of product) are not used for certain types of production. Such technology standards are widely used in the European Union member countries and applicant countries. As Georgia is planning to adopt a law on integrated pollution control system by 1 January 2006, regulations concerning direct emission standards in the energy sector, metallurgy, waste incineration and some other types of production should be adopted before that date.

Recommendation 5.2:

The Ministry of Environment and Natural Resources Protection should modify the procedure for setting emission limits for industrial plants, by progressively introducing, where possible, direct emission standards, similar to those included in the protocols to the Convention on Long-range Transboundary Air Pollution. This would significantly facilitate the present procedure for setting emission limits and reduce the cost.

Three countries of the South Caucasus (Armenia, Azerbaijan and Georgia) have acceded to the Convention on Long-range Transboundary Air Pollution. This creates a good basis for subregional cooperation among the three countries to reduce air pollution. Only Armenia has signed both 1998 Aarhus Protocols on Heavy Metals and on Persistent Organic Pollutants, and the 1999 Gothenburg Protocol to Abate Acidification, has not signed any of the protocols. As these protocols contain less strict obligations than the European Union directives, the implementation of the Convention (through the protocols) would be an important step toward implementing EU directives, which the 1999 Law on Ambient Air Protection sets as a goal.

Recommendation 5.3:

The Government should consider acceding to the following four protocols to the Convention on Long-range Transboundary Air Pollution:

- *The 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone;*
- *The 1998 Protocol on Heavy Metals*
- *The 1998 Protocol on Persistent Organic Pollutants (POPs); and*
- *The 1984 Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP).*

The Ministry of Environment and Natural Resources Protection should assess and advise on the activities related to these protocols.

CHAPTER 9: Mining, Industry and environment

During the Soviet period, management was focused on economic growth and rapid industrialization, without proper consideration of environmental issues. Thus, Georgia's industry developed under an energy and resource-intensive regime, resulting in high levels of environmental pollution. The economic crisis reduced environmental pressure from industry. The main environmental problems in industry and mining are related to the use of outdated technologies, low efficiency or lack of pollution controls, and the disposal and treatment of waste accumulated around the facilities. Currently, there are no regulations applied to waste generation, reduction, disposal, storage and recycling. Moreover, the absence of environmental monitoring in Georgia makes it difficult to assess present and past pollution from industrial and mining activities. Waste composition and volume, and the extent of soil, surface and groundwater contamination, and its effects on human health are not known.

Recommendation 9.1:

The Ministry of Environment and Natural Resources Protection, in cooperation with the Ministry of Economy, Industry and Trade, should:

- (a) *Carry out a complete inventory of mining and industrial hot spots. The inventory should focus on the current state of facilities, equipment and technologies used, pollution prevention and control systems, and waste management. A risk assessment should urgently be carried out for each mining and industrial hot spot;*
- (b) *Carry out a study of the impacts of harmful mining and industrial emissions, effluents, and accumulated waste, on the surrounding environment and on human health. Priority should be given to hazardous mining tailings, especially those located in tectonic unstable areas. Particular attention has to be paid to the composition and amount of industrial waste, as well as to waste disposal, storage, recycling and reuse.*

Recommendation 9.2:

The Ministry of Environment and Natural Resources Protection, in cooperation with the Ministry of Economy, Industry and Trade, should:

- (a) *Develop a special programme, including a financial mechanism, for the mitigation of priority environmental problems in mining and industry, based on reliable and updated information provided by the inventory (see recommendation 9.1);*
- (b) *Draw up action plans and submit them to international donors in order to raise the necessary funds for their implementation.*

Although Georgia has made efforts to integrate environmental objectives into mining and industrial management, progress has been slow. There are no strategies or policies in the mining sector defining concrete mechanisms for improving the situation, and the Law on Mineral Resources lacks modern and effective mining regulations. Reconstruction of the mining sector is, nevertheless, a matter of priority for the country's economic development. Economic recovery will inevitably lead to an increase in harmful emissions, wastewater discharges, and waste generation and accumulation. Moreover, the lack of policies promoting the minimization of waste generation at source, its treatment, recycling and reuse, aggravates the situation. Principles such as BAT, EMS, environmental audits, and environmental insurance, although stated in the Law on Environmental Protection, have not yet been implemented.

Recommendation 9.3:

The Ministry of Environment and Natural Resources Protection should:

- (a) *Consider developing a strategy to improve the environmental management of mineral resources and introduce better environmental practices in mining;*
- (b) *Update the Law on Mineral Resources and harmonize it with international mining regulations;*
- (c) *Encourage mining and industrial companies to carry out periodic environmental audits in order to evaluate and stimulate their performance and competitiveness;*
- (d) *Develop a strategy for mining and industrial waste minimization, recycling and reuse, particularly for hazardous waste; and*
- (e) *Provide adequate and effective staff training on these issues.*

Cleaner production is a preventive environmental strategy aimed at reducing the costs of pollution and waste generation at source by implementing measures that are both environmentally sound and financially viable. The experience of the European Commission with cleaner production projects reveals that, on average, a 20% reduction in waste and emissions is achievable with nil investment. A further 10-20% reduction is possible with relatively small investments with payback periods of less than one to three years. In this process, Government's role and donor support are essential. At the same time, enterprises and their managers must make a commitment to improving their environmental performance continuously. With time, the process should be self-sustaining, driven by the commitment and interest of enterprises, and supported by an enabling policy and institutional framework. Current opportunities for cleaner production in Georgia appear to be greatest in the food and export-oriented industrial sectors. However, cleaner production policies are not developed in Georgia, and related education and training are non-existent.

Recommendation 9.4:

The Ministry of Environment and Natural Resources Protection, in cooperation with the Ministry of Economy, Industry and Trade should:

- (a) *Set goals, establish policies and provide target assistance to promote the introduction of cleaner production. Support for cleaner production should be clearly focused on those sectors that are best disposed to implement and multiply such measures (e.g. food and export-oriented industries);*
- (b) *As a first step, develop some demonstration projects, linked to a broad dissemination strategy, and implement them with financing acquired through international cooperation programmes and other sources.*

Most industrial sectors need safety regulations, since the current ones are based on old Soviet directives that require updating. The State Inspection for Technical Supervision has developed new safety requirements according to international standards for the gas sector. However, safety regulations for other hazardous industrial sectors (e.g. chemical industry) have not been developed yet due to the lack of funds for this purpose. The “Azoti” nitrogen fertilizer plant is an example of an industrial risk spot. It is located in the city of Rustavi, an urban area with about 150,000 inhabitants. The plant produces ammonium nitrate and sodium cyanide, which are highly toxic. Their processing requires the application of effective safety and risk measures, which are currently not developed in Georgia. In the event of an industrial accident, the consequences for the local population and the environment would be catastrophic.

Recommendation 9.5:

The Ministry of Environment and Natural Resources Protection, in conjunction with the State Inspection for Technical Supervision and the Department of Emergency Situations of the Ministry of the Interior, should:

- (a) *Introduce safety measures for hazardous industrial activities in accordance with the UNECE Convention on the Transboundary Effects of Industrial Accidents and the European Union’s SEVESO II Directive in order to prevent industrial accidents, which may have severe consequences for the local population and the environment;*
- (b) *Develop awareness and preparedness plans at a local level in industrialized regions to specify the roles of local institutions and the community for a prompt accident response, such as the UNEP Awareness and Preparedness for Emergencies at the Local Level (APPELL); and*
- (c) *Urgently develop or update, as appropriate, emergency plans at high-risk industrial sites.*

CHAPTER 10: Energy and Environment

Georgia has been facing an enormous energy crisis from which it is only slowly recovering. There is a huge need for investment to counter the years of neglect in the generation, transmission and distribution systems. The energy crisis had some positive environmental effects, such as the decrease in air pollutants and greenhouse gases from thermal power stations and district heating systems. These positive effects, however, were by far outweighed by the negative social consequences for the population and industry, and the shift to indoor air pollution.

Progress is being made with the individual rehabilitation of small hydropower stations. There is no strategy or energy policy prioritizing projects for rehabilitation, and there is little to no interest from the Government in demand management. There are no programmes in energy conservation or efficiency improvements.

International cooperation in energy is important to Georgia for various reasons. Georgia is a Party to the Energy Charter but not to its Protocol on Energy Efficiency and Related Environmental Aspects. The Protocol provides a forum for its Parties to share experience and advice with other countries in transition, as well as with the European Union and members of the Organisation for Economic Co-operation and Development (OECD). In addition, Georgia could benefit from an in-depth energy-efficiency review to assist the Ministry of Fuel and Energy in developing its energy-efficiency policy.

Recommendation 10.1:

The Ministry of Fuel and Energy should draw up a clear strategy for the energy sector, including a strong focus on demand-side management, energy-efficiency and environmental impacts. Accession to the Energy

Charter Protocol on Energy Efficiency and Related Environmental Aspects could assist Georgia in developing such a policy, and should be promoted by the Ministry of Fuel and Energy.

According to the decree on the Development of the Use of Non-traditional Energy Sources, the Government gives priority to the use of renewable sources such as wind, biomass, solar and geothermal waters. The technical potential for these renewable sources appears to be rather large, e.g. wind energy would generate 1 trillion kWh. It is also estimated that 1.5 million people could be supplied with hot water and heating from geothermal waters.

Recommendation 10.4:

The Ministry of Environment and Natural Resources Protection should review the potential for supporting the establishment of economically viable alternative energy facilities in areas outside the grid.

CHAPTER 11: Agriculture and Environment

Agricultural production in Georgia is in difficulty. The structure of production and markets has changed dramatically, and there are essentially no resources available to adapt to the new situation. It is easy to see why environmental issues are not a priority. Therefore, it can be argued that, also from an environmental perspective, it is important at this stage to support the general development of the agricultural sector. The skills and income of the new farmers will need to be improved before any significant environmental objectives are likely to be achieved.

Desertification and erosion are the two most serious environmental issues related to agricultural production. Both are accelerating, which is distressing, since they are essentially irreversible.

With regard to anti-erosion activities, Georgian scientists, agricultural experts and the authorities have significant experience and a high level of awareness. This is demonstrated by the fact that the Ministry of Food and Agriculture has a separate service focusing on issues of soil fertility.

Two obstacles to a successful fight against erosion and desertification are the lack of funding and the lack of awareness of the fact that the restructuring of agriculture and the changes in society call for new approaches. In the planning of efforts it should be remembered that no single institution is able to carry out measures to combat desertification and land degradation successfully: only joint and integrated efforts, based on good information, can promote cost-efficient measures and achieve their targets.

Recommendation 11.1:

The Ministry of Food and Agriculture, in cooperation with the Ministry of Environment and Natural Resources Protection, should re-establish funding for programmes to counteract erosion and desertification as a priority. The programmes should involve farmers, communities and local authorities. Co-funding and contributions in kind from these stakeholders should be a longer-term objective.

In the current economic climate, it is very difficult to introduce elaborate schemes on environmental protection in the agricultural sector. New or changed practices can be introduced only if they also improve production and living conditions. Energy supply problems are, for example, a major cause of destructive logging of forests leading to erosion. The GEF/World Bank project ARET rightly focuses on the demonstration and promotion of “win-win” opportunities, such as using manure for the production of natural gas, that not only decrease eutrophication but also lead to a more efficient use of inputs in agriculture and a better standard of living.

Extension services are a key instrument in the development of efficient agricultural production. There are attempts to develop extension services, but they are hampered by a lack of funding and a general mistrust towards the authorities.

Recommendation 11.2:

The Ministry of Food and Agriculture should, as a priority, develop an action plan to promote the development of extension services that would, inter alia

- *Promote the development of agricultural practices to decrease soil erosion and ensure the safe and efficient use of pesticides and fertilizers;*

In the present situation it is difficult to develop and implement coherent policies on agriculture, which would take into account all aspect of agriculture including the environment. The fact that the situation in Georgian agriculture is changing rapidly complicates matters. Many initiatives and projects contribute to its development, but information on experience with these initiatives is not readily available. The strictly sector-oriented approach of the Government sometimes results in conflicts between authorities. Environment and agriculture is one example where improved communication between the different authorities and stakeholders could contribute to the development of more efficient policies.

The Ministry of Environment and Natural Resources Protection does not have a systematic approach to following the overall development in sectors such as agriculture, and needs to create mechanisms that would give a better basis for the development of future policies in different areas.

Recommendation 11.3:

The Ministry of Environment and Natural Resources Protection, in collaboration with the Ministry of Food and Agriculture, should promote the sharing of information on environmental problems in agriculture among all stakeholders to further understanding of the issue, to inform policy-making, and, over time, as a means of developing national codes of good agricultural practices (see recommendation 11.2).

One effective way of facilitating the sharing of information is annual round tables on the sustainability of Georgian agriculture with the involvement of all stakeholders.

Organic farming will not become a major source of production in Georgia in the immediate future. However, the development of organic farming is important for exploring opportunities and developing experience in moving towards a sustainable agricultural production. Market niches for organic products could also boost the income of individual producers.

The main stumbling block is the need to establish a labelling system for certified products. A legal act on environmental labelling of foods has been drafted. The adoption of this law would significantly cut the cost of developing labelling for organic products.

Recommendation 11.5:

(c) The Ministry of Food and Agriculture should urge Parliament to adopt the law on the production and certification of agricultural products.

CHAPTER 12: Spatial Planning and Land Use

A clear territorial-administrative structure and a division of responsibilities between different administrative levels are prerequisites for the effective organization of a spatial planning system and management of the environment. The issue of administrative subdivision of the country and self-government are being hotly debated in Georgia. At the national level, there is a lack of regional and local perspective. Although this raises a number of difficult issues, the Government and Parliament should develop a clear and efficient political and administrative structure in order to secure sustainable development, efficient spatial planning, land use and management. Whilst it is necessary to maintain State and government powers and control over land use and management, transparent and simple administrative structures could contribute significantly to the identification of priority issues, efficient decision-making, and the effective implementation of policy decisions at regional and local levels. Sustainable land use and territorial development require local decisions and implementation.

Recommendation 12.1:

The Parliament (through legislation) should streamline the administrative structure of the country, based on the principle that the division of responsibilities and the rights of the State, the region and the municipality should be clearly set out (overlapping of functions and duplication of efforts must be avoided). The principle of the decentralization of powers should be accepted.

There is virtually no legal basis for spatial planning and physical development. The old master plans dating from the Soviet period are not relevant to today's social-economic issues. Passing laws on spatial planning and physical development should be an urgent priority for the Government and for Parliament. Without such tools and the resultant specific plans, sustainable regional and urban development is not possible. Pressures for new development without a legal and planning framework would seriously threaten the very large cultural and historic values in Georgia's urban and rural environment. At present there are neither the competent personnel nor the economic resources to carry out fast, full-scale master planning for all areas where it is required.

Very often new construction and tender documentation and changes in land use are approved without regard to urban development documentation. In the municipality of Tbilisi, for example, the lack of a common database on city development and frequent changes of the chief architect hinder an orderly urban development process. New fast planning procedures and products, which adequately address the most urgent urban development issues, are essential. Focus should be on both the administrative structure and content of spatial planning and development control.

No one outside of the local authority and Parliament should have power to decide land-use issues. Power to ensure that land use in proposed projects is in accordance with approved land-use plans should rest solely with the local authority's planning department.

Recommendation 12.2:

Relevant bodies should, as a matter of priority:

- (a) *Prepare a new framework law on spatial planning; in this legislation control of new development should be given political priority. The law should also ensure the implementation of international obligations in granting or allocating land during privatization;*
- (b) *Take steps to identify and register all State land. Standards and relevant procedures should be developed for determining public land needs;*
- (c) *Carry out a physical and legal survey of real property and documentation of cultural and historical heritage and protected zones by establishing an appropriate register. This activity could be carried out within a sub-regional environmental context in Georgia and its neighbours (Armenia and Azerbaijan).*

Recommendation 12.3:

- (a) *The Government, in cooperation with the municipalities, should establish a list of geographic areas where a large number of development proposals exist or are expected in the near future; environmental assessment of these geographic areas should be given priority in order to avoid negative impacts on the environment from the privatization of urban property and market development. All municipalities should establish a unified database on city development;*
- (b) *The Government of Georgia should pay special attention to the city of Tbilisi, which should streamline its planning and decision-making structure, and base its decision-making on a transparent, user-friendly multipurpose information database on city development; and apply its Rules of Land-use and Building Regulations and provide funding for the preparation of zoning maps.*

The Government has carried out a massive land privatization campaign in rural areas, but a significant amount of land still remains in State ownership. Now the Government proposes to privatize this land, expecting to gain extra revenue for the State budget and increase farm efficiency. However, due to inefficient farming and the lack of markets for farm products, rural land in Georgia has little value and the Government should not expect to raise much income from its sale. The Government should also remember that any sale of land to farmers is likely to decrease investment in agriculture, as farmers would have to use their scarce resources

to buy land rather than to invest in developing the farming sector. Given the state of the rural economy, the Government should concentrate on measures to increase the value of land and provide it with stable income through the leasing of land to private individuals and companies. Most of the State-owned land is located in mountainous areas with a significant natural value. Measures should be taken to maintain and protect such areas in the public interest. The key component in the discussions for the second stage of land privatization is also the concept of public needs. Rural land is needed for the creation of transport infrastructure, oil and gas pipelines, control over development of natural reserves and resources.

The existence of several State bodies, as well as municipalities, responsible for different aspects of urban land privatization, the lack of valid urban development plans and the non-involvement of the municipalities in the privatization processes create particular problems for sustainable urban development. A clear and transparent land privatization policy is essential. It should identify: (i) what land can be privatized and what land should remain in public ownership; (ii) procedures that would cut the red tape and facilitate land transfer. To prevent further damage to infrastructure and the environment any future land privatization should be based solely on land management programmes.

Recommendation 12.4:

The relevant bodies should undertake the following steps in the further privatization of land in rural areas:

- *Carry out land surveys of areas that are to be privatized to obtain an accurate picture of their situation. This could be undertaken by the land management offices;*
- *Implement land-use planning projects based on these surveys;*
- *Register the boundaries of new agricultural units or State reserved lands in the cadastre. At this stage, the Government is the owner of these land parcels;*
- *Hire an independent appraiser and establish a market value of the farm unit and then offer it for auction with this market value used as a starting price.*

Improving the performance of the housing sector is an important factor in urban environment. There is a definite need to provide decent housing and social protection for needy households. Many households are also very vulnerable to environmental hazards, the most telling example of which is the series of earthquakes that shook Tbilisi in April 2002. Many lives could be lost unless urgent measures are taken to improve the existing housing stock in Tbilisi and other major cities. At least 1,700 families need relocation. As most people are poor, major improvements in this sector in the short and medium term will not take place without targeted assistance from the Government.

The privatization of housing has been a central element in the Government's privatization policy since 1992. At present approximately 90% of the housing stock is privatized and some 450,000 families live in multi-storey privatized housing. Properly managed and maintained privatized housing is vital to Georgia's short- and medium term environmental development. Although the Civil Code includes the concept of private ownership of flats in multi-storey buildings and contains some very important regulations for such ownership, e.g. the obligation to create homeowners' associations, Parliament has not yet passed a separate law on the private ownership of multi-flat housing. It is unrealistic to assume that the limited regulations on this type of housing contained in the Civil Code will be sufficient to regulate this very important part of Georgia's housing stock.

Private ownership of multi-flat buildings can operate efficiently only if the owners of the units are themselves aware of, take responsibility for, and are able to manage the rights and obligations deriving from this type of ownership. As this is a new and unknown type of ownership in Georgia, flat owners urgently require information and assistance.

Recommendation 12.6:

The Government should develop a national housing development strategy giving special attention to city development and new housing construction, strictly in accordance with environmental concerns, land-use and zoning plans.

CHAPTER 13: Transport and Environment

The transport sector clearly provides social and economic benefits to the people of Georgia, contributing 14% of GDP in 2001. Transport, however, including roads, rails, ports, aviation and pipelines, is associated with actual and potential environmental impacts. Currently, freight volumes and passenger volumes are slowly recovering their pre-independence levels, and the construction of two new pipelines is about to begin. With freight and passenger volumes still at reduced levels, Georgia has found it an opportune time to improve the environmental management system for transport, as evidenced in its Transport Policy Concept Paper (which supports sustainable transport) and various other initiatives, such as fuel quality improvement initiatives.

The Government strongly supports the development of Georgia's transit potential. The attention is on the future economic benefits; less attention has been given to the potential serious environmental impacts associated with porous borders (e.g. potential increase in illegal trade) and larger volumes of hazardous chemicals being transported on Georgian territory (inadequate framework to manage imports and exports and the transport of dangerous materials at this time). The Law on Environmental Permits (art. 4k) subjects the implementation of infrastructure plans, projects and programmes and, more specifically, transport infrastructure development programmes to EIA.

Recommendation 13.1:

The Ministry of Environment and Natural Resources Protection should initiate a study to be undertaken and supported by the TRACECA project, on the transit corridor development programme to assess the impact of integrating Georgia (and the other member countries) into the international transport system. The study should identify alternative routes, alternative technologies and mitigation measures.

Leaded petrol was banned in Georgia in 2000; however, a significant amount of leaded fuel remains in the market, presumably illegally. At the same time, the differentiated tax rate for leaded and unleaded petrol, introduced in 1993, remains in effect. The tax difference (67%) is similar to that of many OECD countries. Since 1998, there has also been a 60% excise tax and a 20% VAT on transport fuels. Unleaded petrol is priced significantly higher than diesel. These taxes, as implemented, and the price structure do not encourage sustainable transport (i.e. switching to cleaner fuel).

Recommendation 13.2:

The Government should set up a programme to implement the ban on leaded petrol, taking into account the needs of the existing car fleet.

A Strategy (Concept) of the State Programme for Improving Fuel Quality was approved in January 2002. The Ministry of Transport has a work plan (Decree No. 302) to improve vehicle quality. The documents clearly outline many of the inter-related steps needed to begin the process of improving fuel quality and vehicle quality in Georgia.

Recommendation 13.3:

The Ministry of Transport and Communications should ensure that the approved work plan is implemented, as outlined in Decree No. 302, and that progress is strictly monitored and reviewed.

Tbilisi has severe air quality problems. Furthermore, its specific geography does not allow the operation of a large number of vehicles. Other parties, as referred to above, are working on fuel and vehicle quality (i.e. technological issues), but little attention has been given to one very important component of a sustainable transport system: demand management. Every effort is needed to decrease total demand for transport in general and demand for private transport in particular. The Tbilisi municipality is moving in the right direction with some of its initiatives (e.g. more electric transport), but it lacks a comprehensive transport-demand management programme. Transport-demand management has four components: improvements to the transport options, market and pricing reforms, parking and land-use management, and various site-specific programmes.

Recommendation 13.4:

The Government should support Tbilisi municipality to:

- (a) Prepare a transport-demand management plan based on strengthening demand for the most environmentally friendly transport modes and technologies. This plan should identify a battery of measures to encourage more efficient use of the existing transport system, thereby reducing total demand for transport by private car;*
- (b) Subsequently implement, to the extent possible, all the transport-demand management measures;*
- (c) Evaluate progress in managing the demand for transport on a yearly basis, to review accomplishments and to revise and improve subsequent demand-management measures.*

CHAPTER 14: Human Health and Environment

According to the general health indices, the health of Georgia's population is better than the average in Eastern Europe, the Caucasus and Central Asia. However, limited access to health care, underdiagnosis of diseases, incomplete registration of births and deaths, as well as difficulties in defining population size, all influence the health statistics, and in some cases the indices may be overoptimistic. Increases in the incidence of tuberculosis, malaria and some other earlier rare infectious diseases, as well as food and water-borne infectious disease epidemics, indicate problems in water and air quality, and housing.

Ambient air pollution, indoor environmental conditions including radon decay products, water quality problems, and dysfunctional waste management constitute the main environmental hazards with a substantial public health impact.

The NEAP prepared by the Ministry of Environment and Natural Resources Protection and adopted by presidential decree includes short-term and mid-term goals for environmental protection. Achieving these goals will substantially reduce the environmental health hazards to the Georgian population. The NEHAP prepared by the Ministry of Labour, Health and Social Affairs and to be signed by the President also includes a detailed programme of actions to reduce the health effects of environmental pollution. Furthermore, the National Health Policy lists environmental pollutants as priorities to improve public health.

The development of an integrated approach to environmental health management requires close cooperation between the Ministry of Labour, Health and Social Affairs and the Ministry of Environment and Natural Resources Protection. Cooperation is needed in particular in environmental and health monitoring, the sharing of information, environmental and health impact assessment, and the planning of actions.

Relevant and valid information on public health and environmental conditions over time is a prerequisite for rational decision-making in environmental health management. Georgia inherited the health and environmental information systems from the former Soviet Union. The health information system used standardized routine data collection in polyclinics and hospitals, and the reporting was conducted through two or three stages to the national offices. The allocation of human resources and the breadth of surveyed health outcomes were extensive, but lack of quality control limited the efficient use of data. A major weakness was the aggregation and transformation of data, which seriously limited the use of regional data in the assessment of health effects of environmental exposure. The use of health information from this

type of system for assessing environmental health effects has recently been evaluated and discussed in detail. There was also extensive standardized monitoring of air, water and soil quality by the State Department of Hydrometeorology.

The health and environmental information systems are in transition. Since 1990, due to the severe economic and social crisis, health and environmental data collection has sharply declined in Georgia. The lack of financial and technical resources and institutional weakness are the major problems. Both the NEAP and the NEHAP emphasize the need for environmental and health information. There are several ongoing or planned projects to improve the collection of relevant data. This data collection should be planned and developed so

that the information will facilitate the assessment of the population's exposure to environmental factors as well as the assessment of the environmental health impact.

Recommendation 14.1:

The Ministry of Labour, Health and Social Affairs and the Ministry of Environment and Natural Resources Protection should:

- (a) *Jointly review the NEAP and NEHAP to ensure their mutual consistency and to set priorities for future action for environmental health management;*
- (b) *Develop health and environmental information systems in close collaboration so that they can be combined to monitor environmental health effects, to assess environmental health impact, and to support decision-making in environmental health policy. The Ministries should support the efforts of the Centre for Health Statistics and the Centre for Disease Control to improve health data quality and continue surveys to identify data quality problems, train personnel, establish computerized databases and implement procedures for data quality control. (See recommendation 3.1)*

The extensive use of lead in petrol constitutes a serious public health problem especially for children, whose intellectual development is compromised by exposure to lead. The existing law (July 1999) requires a total ban of petrol containing more than 0.013 grams of lead per litre, and this should be enforced. (See chapter 13, on transport and environment.)

Recommendation 14.2:

The Ministry of Labour, Health and Social Affairs should monitor blood lead levels in children as an indicator of a reduction in exposure to lead.

Ambient air pollution in urban areas has a substantial public health impact. A recent quantitative assessment of the impact of air pollution in Tbilisi, as well as calculations of the benefits of reducing air pollution to European Union standards, provide strong justification for action. Similar effects are likely also in other urban areas. Transport is currently the main source of air pollution and traffic density is increasing, which results in increasing exposure and health effects. Air pollution levels should be reduced to protect public health (see chapters 5, on air management and 13, on transport and environment).

Recommendation 14.3:

The Ministry of Labour, Health and Social Affairs and the Ministry of Environment and Natural Resources Protection, in collaboration with other ministries, should protect public health by continuing actions to reduce the population's exposure to air pollution, in particular from vehicle exhaust fumes. Air pollution monitoring should be strengthened, and, in view of its relevance to health, PM10 should be monitored in the future.

There is sporadic information that several indoor factors are likely to cause adverse health effects. These include combustion products from heating and cooking, smoking indoors, radon decay products, and dampness and mould. In order to develop strategies for improving indoor environmental conditions in homes and other buildings, more objective information is needed on sources, emissions, concentrations and exposure. Smoking regulations and restrictions are essential to ensure improved indoor air quality.

Indoor radon exposure is a potentially serious problem, and radon monitoring should be a priority for radiation protection. Further decision-making should be based on the results of a nationwide survey that will provide information on the indoor radon concentrations in different areas of the country. At the moment, there is no monitoring of radon contamination of drinking water.

Recommendation 14.4:

- (a) *The Ministry of Labour, Health and Social Affairs should develop a strategy for improving indoor environmental conditions. The first task is to collect information by conducting a representative survey in homes and other buildings. Restriction of smoking indoors to reduce exposure to environmental tobacco smoke is strongly justified for health reasons;*

(b) *The Ministry of Environment and Natural Resources Protection should conduct a nationwide survey of indoor radon exposure and use its results to develop a strategy to minimize the public health impact.*

Microbiological contamination of drinking water is a well-recognized problem in Georgia. Improvement in water treatment can substantially reduce the burden of water-borne diseases. Measures should be focused on prevention of secondary contamination of water in distribution systems and uninterrupted basic water treatment at treatment plants. While continuous chlorination is of paramount importance, uninterrupted physical treatment of surface water (filtration and coagulation) is also necessary for water supply systems that are using surface water sources or poorly protected ground water sources (see recommendation 7.1).

The ability to diagnose infectious diseases should be improved. While it may not be feasible to simultaneously improve laboratory capabilities at all medical facilities across the country, limited resources can be focused on establishment of national and regional diagnostic centres equipped with modern methodologies. Improving the ability to detect these pathogens in food products and water supplies will provide the opportunity not only to determine causes of outbreaks and take timely containment measures but also to conduct regular surveys across the country and work on outbreak prevention.

Monitoring of chemical pollution of water supplies is limited to a few basic parameters and quality control is lacking. Data on the chemical contamination of food products are extremely limited. Many chemical laboratories are underfunded, underequipped and understaffed. The existing limited resources should be pooled to establish an inter-agency chemistry laboratory with modern equipment and well-trained personnel. This central laboratory would enable the Georgian environmental health specialists to address urgent issues of environmental pollution in different parts of the country and provide reliable data for risk assessment and priority-setting. It may also serve as a reference laboratory and a training centre.

Recommendation 14.5:

The Ministry of Labour, Health and Social Affairs should:

(a) *Focus resources on the establishment of central and regional laboratories with expanded capabilities to diagnose a wide range of infectious diseases and detect bacterial, viral and protozoan pathogens in water and food samples;*

(b) *Concentrate resources to establish at least one well-equipped inter-agency laboratory for chemical analyses of environmental samples including water, ambient and indoor air, and soil.*

*Implementation of 1st EPR recommendations**

PART I: THE FRAMEWORK FOR ENVIRONMENTAL POLICY AND MANAGEMENT

CHAPTER 1: Policy, legal and institutional framework and sectoral integration

Recommendation 1.1:

The Ministry of Environment and Natural Resources Protection and other relevant ministries, in attempting to converge their legislation with EU directives, should adapt the objectives and standards to national legal practice.

To follow best European experience in the legal regulation of environmental protection, drafters of national laws may also borrow mechanisms or procedures from EU directives or other legislative acts and adapt them to the country's legal system.

During the current reporting period, the Government has made a commitment to bring its laws and practices closer to those of the European Union (EU), a process known as convergence, including the adaptation of commitments. This recommendation has been implemented in many instances. Georgia has in a number of subject areas followed best European experience in the legal regulation of environmental protection, and drafters of national laws have borrowed mechanisms or procedures from EU directives or other legislative acts and adapted them to the country's legal system.

A clear example of convergence has been taking place on water management. EC legislation on water management is aimed at achieving an integrated approach to water management. A convergence plan has been prepared as part of the legal component of the assistance provided to Georgia in the context of the EU-funded Environmental Collaboration for the Black Sea project. In parallel, this project has prepared a Concept Paper for a new Water Law, which will constitute a significant step on the part of Georgia towards convergence with EU water sector requirements. In developing this convergence plan, it was recognized that Georgia also needs to take a practical approach and to set priorities based on its needs and available human and financial resources. An institutional gap analysis has been carried out taking into consideration ministries with competences related to water management, as well as the roles of the autonomous republics and local self-governance bodies. In addition to analysis of the legal bases for their roles, extensive interviews were carried out with relevant officials to get a more detailed view of actual administrative practices. This process resulted in a list of actions required to carry out the key policy, legal, and administrative changes for this initial stage of convergence. On the basis of the information gathered and subsequent analysis, a timetable for carrying out the priority actions was developed. This action plan and timetable, together with the information on the EU requirements and the rationales provided for the selected actions, comprises the road map for convergence.

Unfortunately, the Project Coordination Unit within the Ministry of Environment Protection and Natural Resources (MEPNR) has been abolished.

Recommendation 1.2:

The Ministry of Environment and Natural Resources Protection and other relevant State bodies should:

- (a) Prepare the necessary regulations and other appropriate instruments for government decision or adoption;*
- (b) Amend existing laws that do not conform to the appropriate criteria.*

This recommendation has been partially implemented. During the reporting period, many amendments to existing legislation took place; the most important one being the amendment of the Framework Environmental

*The first review of Georgia was carried out in 2003. During the second review, progress in the implementation of the recommendations in the first review was assessed by the EPR Team based on information provided by the country.

Law, the 1996 Law on Environmental Protection, which entailed the deletion of the chapter on licensing and the article on State ecological expertise. These subjects were transferred to separate laws, the 2005 Law on Licenses and Permits and the 2008 Law on Environmental Impact Permit. However, the actual obligations under these laws are less stringent than they were originally under the 1996 Law on Environmental Protection. They provide for a significant reduction in the list of activities that require licenses and permits on environment protection, and there were some important simplifications in license and permit issuance procedure that are making it much easier to obtain a license and/or permit.

Many of the sectoral laws as described in the First Environmental Performance Review also remain valid. Most of them have undergone modifications and amendments, including the 1996 Law on the Protected Areas System, the 1996 Law on Wildlife, the 1997 Law on Water, the 1998 Law on Nuclear and Radiation Protection, the 1999 Forest Code and the 1999 Law on Ambient Air Protection.

Gaps mentioned in the first EPR, such as on waste, biosafety and public access to justice, environmental information and decision-making, and also a sectoral law that would provide adequate regulation concerning water, persist. Also, some of the general legal norms as set by the laws regulating environmental protection, including the 1996 Law on Environmental Protection, have not been sufficiently developed in regulatory acts that clearly define functions, obligations and procedures with the most notable exception of licensing and permits, which has detailed sub-legislative normative acts, for example on organizing and approving auctions for the issuance of licenses and permits.

Recommendation 1.3:

The Ministry of Environment and Natural Resources Protection should:

- (a) *Streamline the licensing procedures so that all environment-related licensing decisions are taken by a single body;*
- (b) *Redraft the Law on Environmental Permits and streamline permit issuing procedures to ensure that only one environment-related permit is required. In this regard, the respective provisions of the Law on Water and the Law on Ambient Air Protection should be harmonized with the Law on Environmental Permits.*

(a) Implemented: the Service on Licenses and Permits is the responsible body at the Ministry of Environment Protection and Natural Resources for issuing all environment-related licenses and permits.

(b) Partially implemented: in 2008, the new Law on Environmental Impact Permit (EIP) has been enforced. The EIP replaced the former environmental permit. The issuing of the EIP is based on the EIA report and technical documentation which is still far from integrated permit issuance, using the Best Available Technology (BAT) approach. The new Law on Water has not been adopted yet. The Law on Ambient Air Protection is harmonized with the Law on Environmental Impact Permit.

Recommendation 1.4:

(a) *The Ministry of Environment and Natural Resources Protection should develop detailed regulations for conducting State ecological expertise and environmental impact assessment that would provide for the comprehensive assessment of all impacts, including long-term, cumulative and transboundary effects. The requirements for scoping as an integral part of the EIA procedure should be introduced too;*

(b) *The Government is encouraged not to approve projects subject to EIA before the assessment and the State ecological expertise have been completed and the environmental permit issued by the Ministry of Environment and Natural Resources Protection, as stipulated in the law.*

(a) Partially implemented: in the period 2007–2008 detailed regulations on Environmental Impact Assessment (EIA) and Ecological Expertise (EE), formerly SEE, have been approved and are under implementation. On the other hand, the new and detailed regulations do not contain provisions for screening, scoping and cumulative effects.

(b) Not properly implemented: the obligation for carrying out EIA at an earlier stage before issuing a construction permit is considered by the Ministry of Economic Development (Department of Urbanization and

Construction). At the same time, there are two reasons to conclude that EIAs are not properly implemented in Georgia:

- The Law on Environmental Impact Permit provides an overly narrow list of activities subject to EIA; there is no screening procedure for other activities that might cause a significant negative impact on the environment;
- According to the 2007 Law on Environmental Impact Permit, EIA provisions do not apply to actions defined by this Law if they are exercised by the Ministry or its subordinated agency as determined by the Law on Structure, Authority and Activity. Similar provisions are included in the 2005 Law on Licenses and Permits.

Recommendation 1.5:

(a) *The Government should consider proposing legislative amendments to provisions, in particular, of the Forest Code and the Law on Pesticides and Agrochemicals that cause duplication of enforcement competences. The rights and obligations of each inspection unit should be clearly specified and differentiated, and due cooperation among them should be provided for. The Government should initiate the harmonization of the Administrative and Criminal Codes to allow enforcement bodies to take adequate action against offenders;*

(b) *The Ministry of Environment and Natural Resources Protection should establish an environmental State inspectorate with full inspection powers for environmental enforcement. Companies should also be encouraged to carry out self-monitoring and reporting, as is now required in the Law on Ambient Air Protection. To support self-monitoring, the Ministry of Environment and Natural Resources Protection should encourage the establishment of accredited laboratories and accrediting agents.*

(a) Since 2003, a number of amendments were made to the Administrative Violations Code and the Criminal Code, concerning the precise definitions of the actions and responsibilities for the violations of the administrative and criminal regulations (norms). An Environmental Protection Inspectorate has been established within the Ministry of Environment Protection and Natural Resources, and is responsible for controlling and monitoring the actions foreseen in the Administrative Violations Code and in the Criminal Code, which includes Chapter XXXVI Offences against the Rules of Environment Protection. The Investigation Department within the Ministry of Environment Protection and Natural Resources also carries out the investigations related to these criminal offences.

According to the above-mentioned amendments, enforcement bodies may take adequate measures against offenders to ensure execution of legislative regulations. It is difficult to ascertain whether there are gaps or duplications of the functions between enforcement bodies.

(b) Not fully implemented: no legal provisions for self-monitoring exists, although to a certain extent some large enterprises perform it. There is still a lack of an incentive system for enterprises that promote voluntary compliance.

Reporting by enterprises to the environmental authorities is regarded as a general obligation. The Environmental Protection Inspectorate and the territorial bodies maintain a database on the reports received, and the information gathered is used for the controlling activities and for statistical purposes.

There is a lack of human and basically technical and financial means for the accreditation of the laboratories of the National Environmental Agency, subordinated to MEPNR. Some of them have modern equipment supplied by international cooperation projects.

CHAPTER 2: Economic instruments, financing and privatization

Recommendation 2.1:

The Ministry of Environment and Natural Resources Protection, in cooperation with the Ministry of Finance, including its Tax Collection Department, the Ministry of Economy, Industry and Trade and other stakeholders,

should improve the system of environmental pollution taxes to make it more effective and to provide incentives for polluters to invest in pollution abatement. This could be done by:

- (a) Simplifying the tax system by limiting the number of polluting substances and concentrating on major pollutants;*
- (b) Improving monitoring to identify and make an inventory of the main polluters;*
- (c) Basing taxes on actual emissions;*
- (d) Improving enforcement (inspection and control) and collection (through lower administration costs, awareness raising and a stable tax system).*

The proposals for improving the environmental pollution tax system should serve as a basis for amendments to the Tax Code.

The system of pollution taxes together with the tax on use of natural resources was abolished in the context of the 2005 tax reform and the entry into force of a new Tax Code. This was in line with Government efforts to streamline the tax system and reduce the overall tax burden for companies.

Recommendation 2.2:

- (a) The Government should take the necessary steps to establish an environmental fund to channel financing for the most urgent environmental projects;*
- (b) The sources for this fund could either be established by earmarking a part of the environmental tax revenue or by increasing the share of government budget spending on environmental priority projects;*
- (c) The Government, under the leadership of the Ministry of Environment and Natural Resources Protection, should establish an independent mechanism to review the allocation of resources for the fund to projects that are consistent with the country's priorities. In addition, all procedures for the use of the funds should be transparent;*
- (d) The Ministry of Environment and Natural Resources Protection should establish a project preparation unit (see recommendation 4.4).*

The 2004 Budget System Law abolished the earmarking of Government revenues for specific purposes as well as all existing extra-budgetary funds such as the Road Fund, which financed road maintenance works partly from earmarked revenues collected from a road transit fee.

Recommendation 2.3:

The Government should further develop and reach consensus on debt-for-nature swaps as a means of reducing foreign debt and increasing expenditure on the environmental sector. Active cooperation between the Ministry of Finance and the Ministry of Environment and Natural Resources Protection is needed to design the swap transactions and expenditure mechanisms.

A debt restructuring agreement was concluded between the Paris Club and Georgia in 2004, but Georgia did not use the option of debt swaps, mainly for domestic fiscal policy reasons.

Recommendation 2.4:

- (a) The Ministry of Environment and Natural Resources Protection should fully exploit its role in the privatization process and should require environmental audits to be carried out by enterprises and industries undergoing privatization;*
- (b) The Ministry of State Property Management should include compliance plans, prepared by the new owner as part of the privatization agreement. These plans should specify the measures that enterprises and industries have to take to comply with environmental standards and regulations.*

The recommendation was implemented in part: the Ministry of Environment and Natural Resources Protection has concluded several agreements with new owners of privatized facilities on the issue of scheduling of environmental investments (for example, heidelbergementi). The privatization process is largely over at this stage.

CHAPTER 3: Environmental information and public participation in decision-making

Recommendation 3.1:

(a) *The Government should adopt the programme on monitoring drawn up by the Ministry of Environment and Natural Resources Protection and other institutions and should provide funding to carry it out. Monitoring of industrial hot spots and high-polluting facilities should be included in this programme as a matter of priority;*

(b) *After adoption, the Ministry of Environment and Natural Resources Protection and relevant institutions should harmonize the environmental norms and standards with international norms and standards, and should set up an appropriate system for environmental monitoring.*

The Ministry of Environment Protection and Natural Resources and other institutions did not draw up a recommended national programme on environmental monitoring. In 2007, the Ministry of Health approved a Technical Regulation on Drinking Water Quality harmonizing relevant requirements with those recommended by the WHO Drinking Water Quality, 3rd edition, 2004. The Ministry is currently reviewing the existing Maximum Allowable Concentrations (MAC) for air quality in the preparation of a technical regulation on urban air quality.

Recommendation 3.2:

The Ministry of Environment and Natural Resources Protection should:

(a) *Prepare an amendment to the Law on Environmental Permits to extend the 45-day time frame for public participation;*

(b) *Improve the exchange and dissemination of all information relevant to the permit procedure, including the environmental impact assessment and the results of the State ecological expertise, for example by creating a depository within the Ministry accessible to the public. (See Recommendations 1.3 and 1.4)*

The 2005 Decree on Approval of Provision on Procedure and Conditions of Granting Environmental Impact Permit, No.154, which is based on the 2005 Law on Licenses and Permits, kept unchanged the 45-day time frame for public participation as it was in the previous relevant legislation. MEPNR administrative orders on the issue of permits are available to the public at the MEPNR website.

Recommendation 3.3:

The Ministry of Environment and Natural Resources Protection should:

(a) *Actively promote adoption by Parliament of the (draft) law on public access to environmental information and decision-making as soon as it is finalized;*

(b) *Following its adoption, widely publicize and distribute the law and support staff training and public awareness campaigns on the content of the law in order to facilitate its application.*

No law was adopted by the Parliament on public access to environmental information and decision-making. An Aarhus Centre Georgia, financed by the Organisation for Security and Co-operation in Europe (OSCE) Mission to Georgia was established in 2005. The aim of this Centre is to support MEPNR in the implementation of duties and responsibilities under the Aarhus Convention. Any interested parties and persons can use the services offered by the Centre.

CHAPTER 4: International cooperation

Recommendation 4.1:

As soon as appropriate capacities for implementation are available, and pursuant to the Partnership and Cooperation Agreement with the EU, the Government should accede to the following conventions:

- *The UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes;*

Georgia has not yet signed or ratified the Water Convention. However, steps are being taken in that direction. For example, an OSCE/UNECE-sponsored project is currently being implemented with the aim of supporting Georgia to ratify and implement the Water Convention. The project is titled “Implementation of the UNECE Water Convention and Development of Agreement on the Management of Transboundary Watercourses Shared by Georgia and Azerbaijan”.

- *The UNECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention)*

Georgia has not yet signed or ratified the Espoo Convention, although it has signed but not yet ratified the Protocol on Strategic Environmental Assessment. A project proposal is being developed with the Netherlands aimed at improving the environmental permit system in Georgia.

- *The UNECE Convention on the Transboundary Effects of Industrial Accidents*

Georgia has not yet signed or ratified the Convention. However, steps are being taken in that direction through the “Project towards Implementation of Legal Basis for Major Hazard Prevention in Georgia”, which is expected to start soon. The main objectives of the project are to: (a) make an assessment of existing national legislation in the sphere of industrial accidents prevention; (b) identify gaps or superfluous legal acts in this sphere, and (c) draw up an action plan aimed at improving the legislation and its enforcement and harmonize it to the extent possible with EU legislation.

- *The Stockholm Convention on Persistent Organic Pollutants*

The recommendation has been implemented. Georgia ratified the Stockholm Convention on 11 April 2006. *The Government should also accede to the following Protocols:*

- *Four of the Protocols to the Convention on Long-range Transboundary Air Pollution (see recommendation 5.3);*

Only the EMEP Protocol was under ratification process during the time of the EPR review.

- *The Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects; and*

This recommendation is no longer considered relevant.

- *The 1995 Ban Amendment to the Basel Convention.*

Not implemented.

Recommendation 4.2:

To ensure effective implementation and compliance, the Ministry of Environment and Natural Resources Protection should take more concrete measures to comply with those conventions to which Georgia is already a Party, including measures to combat and prevent the illegal traffic in hazardous waste and chemicals, ozone-depleting substances and wildlife species. To support implementation and compliance, training of customs officers should be organized regularly.

During the period under review, Georgia submitted reports to the Basel Convention Secretariat (years 2003, 2004 and 2006), although reports for 2005, 2007 and 2008 were not submitted. According to the Law on the Transit and Import of Waste within the Territory of Georgia, based on the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the transit and import of industrial, municipal or other types of hazardous and radioactive waste are prohibited. At the time of the second EPR review, the Division of Waste and Chemical Substances Management (DWCSM) was preparing a twinning programme with the EU aimed at drafting implementing regulations covering the classification

and identification of hazardous waste; the collection, transportation, utilization, destruction and disposal of hazardous waste; development of hazardous waste landfills; and a State inventory of waste. At the same time, the lack of capacity of the DWCSM, which numbered only five persons at the time of the review, is a serious obstacle to the accomplishment of the mandate and responsibilities of the division.

Since the first EPR, there have been quite a significant number of activities to eliminate ozone-depleting substances under the Montreal Protocol Action Plan. Georgia has reached significant progress regarding the phasing-out of the consumption of CFCs and halons and has reduced the consumption of methyl bromides. At the Nineteenth Meeting of the Parties to the Montreal Protocol in September 2007, together with other countries Georgia agreed to accelerate the phasing-out of HCFCs.

To promote data exchange among the various governmental and non-governmental organizations that monitor wildlife species, MEPNR has developed a Concept of Developing Biodiversity Monitoring. The institutions concerned agreed on principles for data submission to the Ministry including 25 biodiversity indicators grouped on the basis of the State-Pressure-Response approach. These indicators were approved by Ministerial Order No. I-293 of 22 May 2009 on Approval of Indicators in the Biodiversity Monitoring System. The development of methodology for monitoring each indicator is underway. Practical biodiversity monitoring activities are expected to be launched in 2010.

Recommendation 4.3:

To achieve effective implementation of MEAs and harmonization of national environmental legislation with EU law, including through internationally supported projects, the Ministry of Environment and Natural Resources Protection should identify and rank priorities and draw up preliminary planning for the effective implementation of its international commitments.

Efforts to harmonize national environmental legislation with EU law have been taken (see for example under recommendation 1.1 in this implementation report). Good examples are the Concept on Water Law (approximation to EU Law) and the Water Sector Convergence Plan for Georgia (harmonization with EU law). Drafts of these documents were prepared in 2009 and further steps are under way. Also, the draft Environmental Code of Georgia, which was submitted to the Government for consideration, takes into account all aspects of the MEAs.

Recommendation 4.4:

The Ministry of Environment and Natural Resources Protection should take the lead in identifying environmental programmes and projects that may need external support. In order to accomplish this, it should take the following steps:

- *Establish a project preparation unit to act as a focus for coordination with donors and international financial institutions;*

A project preparation unit was established but it was abolished during the last reorganization of the MoE. Some of the tasks of the unit have been subsequently moved to the Environmental Policy Division.

- *Set priorities for external funding on the basis of domestic problems and needs, and communicate these priorities clearly to the donor community and international financial institutions; and*

These issues are considered under the Environmental Policy Division.

- *Work in close cooperation with the Ministry of Foreign Affairs and other relevant ministries in project identification and dissemination.*

The Department of Environmental Policy and International Relations has close cooperation with the Ministry of Foreign Affairs, other ministries and donor organizations and initiatives (such as ENVSEC, USAID, UNDP, KfW, WWF, and GTZ).

PART II: MANAGEMENT OF POLLUTION AND OF NATURAL RESOURCES

CHAPTER 5: Air management

Recommendation 5.1:

The Ministry of Environment and Natural Resources Protection should broaden the scope of the national emission inventory to include additional substances and emission sources, to enable the use of the CORINAIR system, the SNAP classification and EMEP provisions to their full extent.

The Division very recently submitted to the Minister a document on a new way to calculate emissions and to include other gases, partly based on the Core Inventory of Air Emissions (CORINAIR).

Recommendation 5.2:

The Ministry of Environment and Natural Resources Protection should modify the procedure for setting emission limits for industrial plants, by progressively introducing, where possible, direct emission standards, similar to those included in the protocols to the Convention on Long-range Transboundary Air Pollution. This would significantly facilitate the present procedure for setting emission limits and reduce the cost.

A document on a new way to calculate emissions and to include other gases was submitted to the Minister for approval, part of which is based on CORINAIR. Some of the limit values imposed on industry are lower (more strict) than those of the Convention. However, since there is no inspection and no specialized laboratory reports are required, industry may report the values it wishes to report.

Recommendation 5.3:

The Government should consider acceding to the following four protocols to the Convention on Long-range Transboundary Air Pollution The 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone;

- *The 1998 Protocol on Heavy Metals;*
- *The 1998 Protocol on Persistent Organic Pollutants (POPs); and*
- *The 1984 Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP).*

The Ministry of Environment and Natural Resources Protection should assess and advise on the activities related to these protocols.

Georgia is only part of the Convention, not of the Protocols. However, Georgia took some steps to be part of the EMEP Protocol.

CHAPTER 6: Waste, chemicals and contaminated sites

Recommendation 6.1:

(a) *The Ministry of Environment and Natural Resources Protection should promote the adoption of the draft law on waste management and its enforcement through the development of regulations, technical standards and norms for this law and other existing legislation on waste management;*

(b) *The Ministry of Environment and Natural Resources Protection, in coordination with other relevant ministries, should prepare action plans for the management of waste, including the rehabilitation of contaminated sites. This action plan should be integrated into the strategy for sustainable development.*

(a) Since 2003, several attempts to submit finalized drafts were made but the Cabinet of Ministers rejected all proposals and none has ever been submitted to the Parliament. A new draft developed with the assistance of international expertise is being finalized by the Waste Division and is expected to be submitted in 2010. This draft follows EU Directives. Once it will be submitted to the Cabinet and approved, a long process involving three hearings in Parliament will continue.

Meanwhile, a twinning project financed by the EU is being prepared. It is likely that the starting of this project will occur in the last quarter of 2010. One of the objectives is to draft a set of implementing regulations on classification and identification of hazardous waste; collection, transportation, utilization, destruction and disposal of hazardous wastes; development of hazardous wastes landfill; collection, transportation, utilization, destruction and disposal of municipal and household waste; collection, transportation, utilization, destruction and disposal of biological waste; State inventory of waste; other sub-regulations as required by a new waste draft law. These regulations will undergo a shorter process, since they do not need to be discussed in Parliament.

(b) A National Implementation Plan (NIP) for Persistent Organic Pollutants (POP) has been prepared and included consultation with different ministries, and is currently being discussed by the Cabinet of Ministers.

A Medical Waste Management Plan has also been prepared, and is the same situation as the NIP.

The second objective of the twinning project mentioned above is the drafting of the National Waste Management Plan, which will include strategic aspects and actions to be taken by different stakeholders. It should be stressed that a significant amount of preliminary work has been done, namely assessment of the situation in the districts, municipalities and villages as well as of planning needs to occur prior to the elaboration of the National Waste Management Plan.

Recommendation 6.2:

The Ministry of Environment and Natural Resources Protection, in cooperation with the municipalities, should:

- (a) *Develop an information management system for municipal waste generation, handling and recycling;*
- (b) *Draw up an inventory of legal and illegal landfills;*
- (c) *Monitor air, groundwater and soil in the vicinity of landfills, with priority given to those that are situated near big cities;*
- (d) *Support the construction of sanitary landfills, processing or incineration facilities, on the basis of positive environmental expertise and environmental impact assessment; and*
- (e) *Raise public awareness about the environmentally sound management of municipal waste.*

(a) Only Tbilisi Municipality monitors waste entering the landfills. There is no legal requirement for the municipalities to provide data on a regular basis, but this requirement is already included in the draft Framework Law on Waste. Currently, when the Ministry asks for information the municipalities provide some data, however, quality of data is low since it comes from empirical estimates.

(b) Legal dumpsites are assessed (1 per district), and some unofficial dumpsites as well. It should be stressed that there are no sanitary landfill in the country, only dumpsites. Furthermore, Municipalities lack technical knowledge on how to install, set up and manage dumpsites. Some ask the Ministry for advice.

(c) There is no such kind of monitoring of air, groundwater and soil in the vicinity of landfills.

(d) There are some projects in preparation. An incinerator was built in Batumi with the support of the EC. Besides, in the Autonomous Republic of Adjara, a central landfill will be built with the European Bank for Reconstruction and Development (EBDR) and the Swedish International Development Cooperation Agency (SIDA); however, there are problems with the choice of the location for the landfill. A landfill servicing Rustavi and Katabani will be constructed with the support of British Petroleum (BP) and EBRD grant. A landfill in Borjomi and another in Bagunian will be constructed with the support of Dutch development cooperation bodies. There has been an attempt to build an incinerator in Poti, but the project is stopped.

(e) No systematized awareness-raising programme exists. However, there has been some TV and radio coverage devoted to awareness-raising on waste. There have also been some ads in the newspapers, and NGOs have promoted some seminars.

Recommendation 6.3:

The Ministry of Environment and Natural Resources Protection, in cooperation with the Ministry of Economy, Industry and Trade, should:

- (a) *Introduce and implement a classification system for industrial waste and hazardous chemicals, including pesticides, on the basis of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS);*
- (b) *Develop a permitting system for hazardous waste and draw up an inventory of major sources of hazardous and industrial waste in order to introduce the technologies for its recycling or environmentally sound treatment;*
- (c) *On the basis of the above, start the rehabilitation of abandoned industrial waste sites and, where technically and economically possible, recycle industrial waste as a secondary raw material.*

(a) Not implemented: the Division of Waste, when requested, uses the classification provided in the Basel Convention, whenever there is still no national regulation to officially implement the classification broadly.

(b) The 2007 Report on Waste Inventory contains information on the amounts and locations of hazardous waste. Due to limitation of the assessment and of the analysis, data can only be considered preliminary. No recycling or environmentally sound treatment exists. There are only a few operators who collect certain types of hazardous waste, such as used oil. But the Division of Waste is not aware of the amounts collected or their final destination.

(c) The only action on this subject is a project financed by Dutch development cooperation bodies to collect and deposit outdated pesticides in a centralized temporary storage facility for future export.

Recommendation 6.4:

The Ministry of Environment and Natural Resources Protection, in cooperation with the Ministry of Economy, Industry and Trade, Ministry of Food and Agriculture and municipalities, should:

- (a) *As a first and most urgent step, take appropriate measures to protect the population and to limit access to the Iagluji site;*
- (b) *Develop a plan for the environmentally sound management of the site that also identifies the institutions that will be responsible for carrying it out;*
- (c) *Carry out a risk assessment of the site in cooperation with the Ministry of Labour, Health and Social Affairs and other relevant institutions;*
- (d) *Identify the quantities and composition of the hazardous chemicals that are buried at the site; and*
- (e) *Develop a plan for its rehabilitation.*

The only action undertaken is a GEF project proposal, which includes the temporary storage for export or disposal in an environmentally sound manner of 250 tons of non-soil mixed POP pesticides buried in concrete sarcophaguses at the Iagluja dumpsite.

Recommendation 6.5:

The Ministry of Labour, Health and Social Affairs, in cooperation with the Ministry of Environment and Natural Resources Protection, should:

- (a) *Organize the separate collection of medical waste, including non-anatomic medical waste, and provide for its environmentally sound disposal or incineration throughout the country; and*
- (b) *Train personnel in the environmentally sound management of medical waste.*

A new medical waste management action plan has been elaborated and is under approval by the Government.

(a) There are some companies that collect this type of waste but it is not certain whether they comply with internationally accepted standards. Inside the hospital, the inspection is done by the Health Inspectorate, outside the hospital the inspection is undertaken by the Ministry of Environment and Natural Resources Protection. A new project supported by Dutch development cooperation bodies is expected to be launched and autoclaves will be built throughout the country, particularly in the districts in which problems were already assessed.

(b) In the Autonomous Republic of Adjara, a large incinerator for medical waste has been built (SIDA funds) and personnel have been trained. Outside of Adjara, there has been no training.

Recommendation 6.6:

The Ministry of Environment and Natural Resources Protection should strengthen its Nuclear and Radiation Safety Service and identify sources of financing to:

(a) *Further inventory and investigate all sites to provide detailed information on kinds of contamination and methods of rehabilitation;*

(b) *Speed up existing projects for the rehabilitation of contaminated sites; and*

(c) *Build storage facilities for radioactive according to the standards of the International Atomic Energy Agency.*

(a) All sites have been identified and data entered into a database as classified information.

(b) According to the Nuclear and Radiation Safety Service, the main site that still needs assessment and treatment is Sakadze, an abandoned depository of radon sources in a near surface concrete basin. However, the amount and activity of sources that the site contains are not known.

(c) The Central Storage Facility was built on the premises of the Institute of Physics.

CHAPTER 7: Water management

Recommendation 7.1:

The Ministry of Labour, Health and Social Affairs in cooperation with the Ministry of Environment and Natural Resources Protection and local governments should ensure that:

- *Drinking water utilities disinfect their water supplies with chlorine or other chemicals so that sufficient disinfection residual is maintained within distribution systems to ensure microbiological safety;*

- *The public is notified of particularly hazardous drinking-water conditions, suggesting, inter alia, alternatives for children and boiling of water; and*

- *Utilities that do not disinfect are justified in this decision; for example those systems tapping protected wells or springs with very short, protected distribution networks.*

- The water supply in big cities as Tbilisi, Rustavi and Mtskheta is privatized. For rural areas, it is under the control of the local water companies. The responsibility for observing the technical regulations as sufficient disinfection residual is borne either by the local authorities or by the private company for water supply. The new Water Supply Agency coordinates and supports coordination between water supply services and customers as well as setting regulations and tariffs. The lack of proper controls for drinking water quality means that adequate disinfection cannot be ensured.

- For notification of the public in case of insufficient drinking water quality, the Ministry of Labour, Health and Social Affairs is responsible. They use all possible communication paths to inform the people

about boiling the water or using bottled water. In each region, the International Centre of Disease Control has regional staff, who go door to door in case of emergency. However, there are still some cases of waterborne diseases per year in the same regions, which are well known to the Ministry of Labour, Health and Social Affairs. It seems that the outbreak of the waterborne diseases is due to the insufficient monitoring of the drinking water, not to the information policy.

- Because of the great number of institutional changes and the new responsibilities for drinking water, the required justification has not been made.

Recommendation 7.2:

The Ministry of Environment and Natural Resources Protection, in cooperation with other relevant ministries, should begin to tackle the problems of waste-water management through the launching of a waste-water programme for the most urgent hot spots.

With the 2009 Decree No. 192, the Water Supply Regional Development Agency was established under the Ministry of Regional Development and Infrastructure. The Agency coordinates water supply and wastewater in Georgia except Tbilisi and Rustavi under the responsibility of a private company. In June 2009, the Ministry of Economic Development established two new companies Ltd Water of West and Ltd Water of East, joining 60 water distributor companies of State property (under the local authority). The companies are dealing with water supply and sanitation service. The main issues of these unifications are simplifying the management and attracting investment in this sector.

As urgent hot spots, MEPNR has defined the areas of the Black Sea coastal zone, Kutaisi and Bolnisi (copper and gold mining).

Between MEPNR and some very large enterprises, memorandums of intent have been signed aimed at the implementation of environmental safety programmes. The memorandums contain a list of environmental activities planned by the enterprise with an arranged timetable, including the fulfilment procedure required for the environmental impact permit and the issuing of the permit itself. A regular report to MEPNR on the activity status every six months is required as well. However, the enterprise is not responsible for damages due to historical contaminations until a defined deadline.

Recommendation 7.3:

The Ministry of Environment and Natural Resources Protection should:

- *Undertake a policy review on the use of watershed-based planning for the implementation of improved water services and water pollution control;*
- *Draft regulations, including incentives, for watershed-based planning; and*
- *Accelerate transboundary cooperation in this area.*

Water issues including river basin management (RBM) are broadly addressed in the draft National Environmental Action Plan for 2007–2012. Under the European Neighbourhood Policy (ENP), the Government undertook to harmonize Georgian water related laws with EU Directives. The first steps have been taken in analyzing the capacities and needs, especially institutional analyses for introducing RBM.

A water sector convergence plan for Georgia has been prepared as part of the legal component of the assistance provided to Georgia in the context of the EU-funded Environmental Collaboration for the Black Sea (ECBSea) project. The goal of this convergence plan is to plot how Georgia can make the transition to an integrated system of river basin management planning as well as actual implementation of the measures required to protect Georgia's water resources.

In parallel, the ECBSea project's legal component has prepared a Concept Paper for a new Water Law, which would, if adopted, constitute a significant step on the part of Georgia towards convergence with EU water sector requirements.

A number of projects such as Kura River Transboundary River Management, Water Management in the South Caucasus, South Caucasus Water Programme, Reducing Transboundary Degradation in the Kura-Aras basin and Transboundary River Management Phase II for the Kura river basin, carried out in the early part of this decade, focused on various elements of transboundary river basin management,

Recommendation 7.4

The Ministry of Environment and Natural Resources Protection should accelerate preparation of a Georgian national action plan for the Black Sea.

Water management should also take into consideration good irrigation practices and the introduction of environmental sound technologies (see recommendation 11.2).

The National Environmental Action Plan (NEAP) for Georgia was delayed for a long period because of the economic situation of the country. It was also considered that the 1996 Strategic Action Plan for the Rehabilitation and Protection of the Black Sea was comprehensive enough for protection and that it was not necessary to include it into the first NEAP. But in the future NEAP, which is under preparation, based on the Strategic Action Plan for the rehabilitation and protection of the Black Sea, activities related to that issue will be included. In April 2009, the parties to the Black Sea Convention adopted a new Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea. The advisory groups started meeting since November 2009 to determine how this Plan should be implemented within the countries concerned.

Regarding the second part of the recommendation, there have been no regulations or changes since the first EPR.

CHAPTER 8: Biodiversity and Forest Management

Recommendation 8.1:

The Government should rationalize the institutional responsibilities for biodiversity, nature conservation and protected areas. Among other tasks, the Ministry of Environment and Natural Resources Protection should have full responsibility for managing protected areas, including those located within forests.

In 2008, the State Department of Protected Areas was turned into the Agency of Protected Areas (APA) with the status of a legal entity of public law under MEPNR. The APA's sphere of activity is to manage protected areas, including those located within forests.

Recommendation 8.2:

The Ministry of Environment and Natural Resources Protection should take the initiative to harmonize all existing legislation and regulations related to biodiversity, in an effort to simplify it and to rationalize implementation.

In order to harmonize all existing legislation and regulations, including those related to biodiversity, MEPNR initiated the drafting of the Environmental Code, which includes a chapter dedicated to the protection of biodiversity. The Environmental Code is expected to be adopted by late 2010 or early 2011.

Recommendation 8.3:

(a) *The Ministry of Environment and Natural Resources Protection, together with the State Department for the Management of Protected Areas, should:*

- *Develop a strategy for protected areas that, inter alia, implements the requirements of the Pan-European Biodiversity and Landscape Diversity Strategy, climate change action plans, and bio-corridors;*
- *Develop management plans for all protected areas as stipulated in the Law on Protected Areas;*

(b) *The State Department of Forestry, in cooperation with the Ministry of Environment and Natural Resources Protection, should develop a general strategy for the sustainable use of forests, ensuring the accomplishment of all forest functions and their stable regeneration.*

A draft National Strategy and Action Plan on the development of the protected areas system was developed in 2008. The actions include establishing new protected areas or expanding existing ones, introducing the network of ecological corridors, and developing management plans for all protected areas.

In 2007, the Ministry of Environmental Protection and Natural Resources prepared a draft document on forest policy. This document was approved by the Government and is ready to be submitted to the Parliament for further consideration.

Recommendation 8.4:

The Ministry of Environment and Natural Resources Protection should:

- (a) *Develop a system for biodiversity monitoring, based on existing scientific information and implemented by the regional environmental offices;*
- (b) *Create an information system and database for biodiversity.*

The Biodiversity Monitoring System has been under development since 2008. For the time being, the following has already been done:

- o Development of a biodiversity monitoring concept;
- o Approval of the indicators for biodiversity monitoring by the 2009 MEPNR Decree No. 293;
- o Establishment of the Biodiversity Monitoring Coordinating Council by the same Decree;
- o Data collection according to the indicators and elaboration of analyzing techniques;
- o Cooperation with the Swiss Environmental Agency on biodiversity monitoring;
- o Creation of the biodiversity monitoring website: www.biomonitoring.moe.gov.ge.

The Biodiversity Clearing House Mechanism is under development within the framework of the project “Capacity-building in the Field of Biodiversity, Participation in the Clearing House Mechanism, and Preparation of II and III National Reports on Biodiversity” (GEF/UNDP, NACRES)

Information on biodiversity can be found at the web site www.chm.moe.gov.ge (flora, fauna, fungi, habitats, agro-biodiversity, protected areas, forests, dangers, Red List species), as well as on international and national organizations and legal acts on biodiversity. An English version of the website is under preparation.

PART III: ECONOMIC AND SECTORAL INTEGRATION

CHAPTER 9: Mining, industry and environment

Recommendation 9.1:

The Ministry of Environment and Natural Resources Protection, in cooperation with the Ministry of Economy, Industry and Trade, should:

- (a) *Carry out a complete inventory of mining and industrial hot spots. The inventory should focus on the current state of facilities, equipment and technologies used, pollution prevention and control systems, and waste management. A risk assessment should urgently be carried out for each mining and industrial hot spot;*
- (b) *Carry out a study of the impacts of harmful mining and industrial emissions, effluents, and accumulated waste, on the surrounding environment and on human health. Priority should be given to hazardous mining tailings, especially those located in tectonic unstable areas. Particular attention has to be paid to the composition and amount of industrial waste, as well as to waste disposal, storage, recycling and reuse.*

No comprehensive study of the impact of harmful mining and industrial emissions, effluents, and accumulated waste on the surrounding environment and on human health has been carried out. However, studies of the impact of individual mining and industrial emissions have been conducted within specific projects. For example, one of the ongoing projects aims to study the impact of the Chiatura manganese plant and its mining tailings on the surrounding environment and the health of the local population.

In 2007, a waste inventory (including industrial waste) was carried out. No risk assessment has been carried out.

Recommendation 9.2:

The Ministry of Environment and Natural Resources Protection, in cooperation with the Ministry of Economy, Industry and Trade, should:

- (a) *Develop a special programme, including a financial mechanism, for the mitigation of priority environmental problems in mining and industry, based on reliable and updated information provided by the inventory (see recommendation 9.1);*
- (b) *Draw up action plans and submit them to international donors in order to raise the necessary funds for their implementation.*

This recommendation was not implemented.

Recommendation 9.3:

The Ministry of Environment and Natural Resources Protection should:

- (a) *Consider developing a strategy to improve the environmental management of mineral resources and introduce better environmental practices in mining;*
- (b) *Update the Law on Mineral Resources and harmonize it with international mining regulations;*
- (c) *Encourage mining and industrial companies to carry out periodic environmental audits in order to evaluate and stimulate their performance and competitiveness;*
- (d) *Develop a strategy for mining and industrial waste minimization, recycling and reuse, particularly for hazardous waste; and*
- (e) *Provide adequate and effective staff training on these issues.*

d) No mining and waste management strategy has been developed. With the support of the EU, it is planned to use the twinning instrument for the elaboration of a waste management strategy.

Recommendation 9.4:

The Ministry of Environment and Natural Resources Protection, in cooperation with the Ministry of Economy, Industry and Trade should:

- (a) *Set goals, establish policies and provide target assistance to promote the introduction of cleaner production. Support for cleaner production should be clearly focused on those sectors that are best disposed to implement and multiply such measures (e.g. food and export-oriented industries);*
- (b) *As a first step, develop some demonstration projects, linked to a broad dissemination strategy, and implement them with financing acquired through international cooperation programmes and other sources.*

The recommendation was not implemented – there is no cleaner production policy in place. Demonstration projects, were, however, implemented in partnership with international donors (TACIS, UNDP, bilateral) and have produced interesting results.

Recommendation 9.5:

The Ministry of Environment and Natural Resources Protection, in conjunction with the State Inspection for Technical Supervision and the Department of Emergency Situations of the Ministry of the Interior, should:

- (a) *Introduce safety measures for hazardous industrial activities in accordance with the UNECE Convention on the Transboundary Effects of Industrial Accidents and the European Union's SEVESO II Directive in order to prevent industrial accidents, which may have severe consequences for the local population and the environment;*
- (b) *Develop awareness and preparedness plans at a local level in industrialized regions to specify the roles of local institutions and the community for a prompt accident response, such as the UNEP Awareness and Preparedness for Emergencies at the Local Level (APPELL); and*
- (c) *Urgently develop or update, as appropriate, emergency plans at high-risk industrial sites.*

None of the three recommendations under 9.5 has been implemented.

Although the Law on Hazardous Production Facilities is very detailed and provides the background for optimum operation, the Law is not observed by any relevant agency. While the Law provides a legal basis for the regulation of industrial accidents, a court order is required to enter any of the facilities for an inspection.

To make the Law work, the Ministry recommends that it be revised and that amendments be submitted on how to make it functional through optimization of institutional responsibilities. One of the options is to pass institutional responsibility on to another entity. For instance, MPENR staff can only enter the facility/enterprise if the license was issued by the Ministry itself.

CHAPTER 10: Energy and Environment

Recommendation 10.1:

The Ministry of Fuel and Energy should draw up a clear strategy for the energy sector, including a strong focus on demand-side management, energy-efficiency and environmental impacts. Accession to the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects could assist Georgia in developing such a policy, and should be promoted by the Ministry of Fuel and Energy.

This recommendation has not been implemented. The Ministry of Energy does not consider focusing on energy efficiency as the most important priority at this stage, given that other more important needs have to be met, despite the fact that the Government has prepared a draft Law on Energy Efficiency and worked actively in this area with support from the United States Agency for International Development (USAID). A public awareness campaign is being run by different organizations and with governmental support. One of the few measures that have been taken to encourage energy conservation is associated with energy tariffs. Specifically, the Government has set step tariffs, which increase per unit fees with increased consumption. Thus, lower consumption is rewarded by lower tariffs. At the time of the review, tariffs were divided into three groups: under 100 kw, between 100 and 300 kw, and over 300 kw.

Recommendation 10.2:

The Ministry of Environment and Natural Resources Protection, in considering the development of any large hydropower dams, should incorporate the recommendations of the World Commission on Dams into its review of the State ecological expertise and the issuance of an environmental permit.

The Ministry of Energy is cooperating with MPENR in this regard.

Recommendation 10.3:

The Ministry of Environment and Natural Resources Protection should develop the capacity to prepare projects under the Clean Development Mechanism of the United Nations Framework Convention on Climate Change.

The Ministry of Energy, which is also the Designated National Authority under the Clean Development Mechanism, is cooperating with MEPNR in this regard.

Recommendation 10.4:

The Ministry of Environment and Natural Resources Protection should review the potential for supporting the establishment of economically viable alternative energy facilities in areas outside the grid.

This recommendation has not been implemented. From the point of view of the Ministry of Energy, market principles are more important at this stage of Georgia's development, and therefore demand should determine the variety and quality of supply.

CHAPTER 11: Agriculture and environment

Recommendation 11.1:

The Ministry of Food and Agriculture, in cooperation with the Ministry of Environment and Natural Resources

Protection, should re-establish funding for programmes to counteract erosion and desertification as a priority. The programmes should involve farmers, communities and local authorities. Co-funding and contributions in kind from these stakeholders should be a longer-term objective.

Some activities to combat erosion were implemented:

- In 2004, a 65,300-lari project was implemented on 24 hectares in the Autonomous Republic of Adjara, including Keda (7 ha), Kobuleti (7 ha) and Khelvachauri (10 ha).
- In 2005, following the project implemented in 2004, a 15,000-lari project in line with the programme on erosion was implemented on the planting of trees for land protection in the same area (24 ha).

Subsequently, due to a lack of financing, activities to combat erosion were not implemented. However, the Ministry of Agriculture prepared a Normative Act on the Adoption of Recommendations on Complex Activities of Land Protection from Erosion. These recommendations introduce concrete conditions for farmers in terms of activities to combat erosion within the Normative Act. They were published in certain numbers of printed copies and distributed in the regions with land erosion.

Recommendation 11.2:

The Ministry of Food and Agriculture should, as a priority, develop an action plan to promote the development of extension services that would, inter alia:

- *Strengthen the Ministry's capacity for extension services;*
- *Develop advisory services outside the State sector;*
- *Promote the development of agricultural practices to decrease soil erosion and ensure the safe and efficient use of pesticides and fertilizers;*
- *Promote good irrigation management practices and the introduction of environmentally sound irrigation technologies; and*
- *In the longer term, implement codes of good agricultural practices.*

In 2007–2008, in all regions of Shida Kartli and Samtskhe-Djavakheti, consultative centers by agriculture development group were established and provided farmers with the necessary recommendations, methodological instructions, and technical material. Farmers benefited from training courses/seminars on issues linked to land protection and effective and safe usage of pesticides and fertilization.

Fifteen service centers for farmers were created in various districts where fertilizations and pesticides are sold on the level based on international requirements. In addition, farmers could obtain advice on activities connected to safe agricultural production, correct exploitation of land and protection from erosion.

In 2007, the Ministry of Agriculture and MEPNR resources worked out an Agricultural Practice Code, which covers all modern approaches on activities concerning sustainable agricultural production. The Code was disseminated throughout the agricultural sector, and with its help, important steps were taken with a view to harmonization with the sustainable development of agriculture and environment and agricultural best practices implemented in the EU nations and other developed countries.

Recommendation 11.3:

The Ministry of Environment and Natural Resources Protection, in collaboration with the Ministry of Food and Agriculture, should promote the sharing of information on environmental problems in agriculture among all stakeholders to further understanding of the issue, to inform policy-making, and, over time, as a means of developing national codes of good agricultural practices (see recommendation 11.2).

One effective way of facilitating the sharing of information is annual round tables on the sustainability of Georgian agriculture with the involvement of all stakeholders.

No such activities were carried out

Recommendation 11.4:

The Ministry of Environment and Natural Resources Protection, in collaboration with the Ministry of Food and Agriculture and the Ministry of Health, should develop an action plan to reduce the illegal import and use of pesticides. This plan should focus on implementation issues more than on the development of new legal acts. The customs authorities and other stakeholders should be involved in the discussions.

A permanent joint working group of the three Ministries, possibly within the framework of the recently established Inter-ministerial Council for Hazardous Chemicals, could in the longer term be an important forum for streamlining the regulations on the import, transport, storage and use of pesticides and other agrochemicals.

Some activities were conducted to decrease illegal import and use of pesticides in the country. Some normative acts were adopted regulating import and use of pesticides. The 2006 Law on Agrochemicals and Pesticides incorporates these regulations. With the implementation of the Law, the problem of illegal import of pesticides has almost been solved.

Recommendation 11.5:

(a) The Ministry of Food and Agriculture should promote the development of organic farming. Support should primarily be directed towards developing regulations, capacity-building and the establishment and development of organizations for organic farming;

(b) The Ministry of Food and Agriculture, together with the Ministry of Environment and Natural Resources Protection, should promote the ecological labelling of food products, in particular those intended for export;

(c) The Ministry of Food and Agriculture should urge Parliament to adopt the law on the production and certification of agricultural products.

Based on the 2006 Law on the Implementation of Biological Agro-production, a list of materials for plant protection and agrochemicals (fertilization) allowable for production of bio-production was issued. On that basis, a Normative Act on the Adoption of the List of Allowable Materials during Production of Bio-production was adopted by order of the Minister of Agriculture No. 2-113, 14 July 2008.

Two new organic fertilizations and three types of biological preparations in order to protect plants from harmful organisms (their usage in biological farming is advisable) were registered in the country.

Recommendation 11.6:

The Ministry of Food and Agriculture, together with the Ministry of Environment and Natural Resources Protection, should initiate discussions with donors and international organizations to establish projects that would guarantee the future conservation of landraces of crop plants and domestic animals. The promotion of conservation of landraces should be included in the draft national strategy and action plan for biodiversity.

With the support of international organizations (ICARDA, FAO, USDA, ACIAR, GEF/UNDP, Bioversity International), implementation of certain activities defined by the NBSAP has started, namely, renewal and enrichment of existing collections and ensuring of the preconditions for the formation of State gene bank.

Recently, special attention has been paid to ex situ conservation of agricultural species and their wild ancestors. With the financing of the Global Crop Diversity Trust and in cooperation with ICARDA (Agricultural Center for Dry Regions), a gene bank was created on the basis of the Institute of Agriculture, which gathered the collections that used to be scattered throughout various places. With the support of the Australian International Agricultural Foundation (ACIAR) and USDA, ICARDA organized expeditions to various districts to collect samples of cereal and leguminous cultural plants and enrich the collection of these. Currently, some 2500 samples of field cultures and vegetables are kept at the gene bank of the Institute of Agriculture.

In the countries of the Caucasus and the north of the Black Sea region, Bioersity International is implementing a project on the conservation and sustainable use of vine genetic resources. The project was launched in 2002 and Georgia is also taking part in its implementation (the Institute of Vine-Growing, Horticulture and Wine Production). This project supported the creation of the collection of local species of vine, some 300 in all. This collection is currently being studied by the University of Milan. With the support of the FAO project “Hortvar”, the Institute of Vine-Growing, Horticulture and Wine Production is compiling a database of local genetic resources of perennial cultures.

The project “Restoration, Conservation and Sustainable Use of Georgian Agricultural Biodiversity” on farm conservation of 11 selected target cultures is being implemented in the Samtskhe-Javakheti region, where wheat, cereals and leguminous plants of local origin are sown in local farms. As for perennial plants, 22 local apple species have been reproduced in the testing plot of Elkana and transferred to farmers. With the aim of on-farm conservation of cultural plant species, the project supports the selection of strategic niche products out of local traditional species, the definition of technological standards, and the promotion of new products at market and tasting events/workshops.

CHAPTER 12: Spatial planning and land use

Recommendation 12.1:

The Parliament (through legislation) should streamline the administrative structure of the country, based on the principle that the division of responsibilities and the rights of the State, the region and the municipality should be clearly set out (overlapping of functions and duplication of efforts must be avoided). The principle of the decentralization of powers should be accepted.

The 2005 Law on Local Self-Governance clearly defines the distribution of responsibilities at all levels (State, region, district, municipality, city and municipalities within a city). Moreover, according to the Law, all levels should develop spatial planning schemes. The Law defines the self-government level as consisting of settlements (self-governed cities) or groups of settlements. Self-government responsibilities include land use and territorial planning, zoning, construction permits and supervision, housing and communal infrastructure development. The Law also stipulates provisions on social housing and reserve funds of housing.

The reality is, however, that local governments have lacked the financial resources to fulfill their responsibilities. One attempted solution to this problem is contained within the Law on Local Self-Governance itself, namely a reduction of the number of units of local self-government, thus allowing for the development of more viable budgets. Furthermore, the Law stipulates that any activities not expressly stated as falling within the purview of the local government can only be delegated to the local government by the central Government on the condition that the delegation of responsibility is accompanied by the necessary finances.

The 2006 Law on Local Budgets attempted to establish a procedure whereby local budgets would be designed by the local executive body and approved by the local parliament. According to this Law, budgets of local self-governments are to be independent, and upper levels of Government may not interfere with this budget autonomy. Indeed, this Law represents, in conjunction with the Law on Local Self-Governance, an attempt to create a self-financing system of local government.

Recommendation 12.2:

Relevant bodies should, as a matter of priority:

- (a) Prepare a new framework law on spatial planning; in this legislation control of new development should be given political priority. The law should also ensure the implementation of international obligations in granting or allocating land during privatization;*
- (b) Take steps to identify and register all State land. Standards and relevant procedures should be developed for determining public land needs;*

(c) *Carry out a physical and legal survey of real property and documentation of cultural and historical heritage and protected zones by establishing an appropriate register. This activity could be carried out within a subregional environmental context in Georgia and its neighbours (Armenia and Azerbaijan).*

(a) The existing system of spatial planning is based on the 2005 Law on Urban Planning. However, most cities in the country still have master plans from the Soviet period, although these are no longer relevant to current socio-economic realities. The Constitution de jure established terms of legitimacy for the legislative and normative acts of the Soviet period, i.e. legal acts or those parts of them that do not contradict the Constitution are legitimate. According to part II of article 106 of the Constitution, the Parliament should determine the compliance of old normative acts with the Constitution within the two-year period following the promulgation of the Constitution. On the privatization issue, 99 per cent of urban land was privatized. Regarding rural land, gaps still exist due to the lack of clear divisions at the local level and clear directives from the Government.

(b) The legal basis to carry out identification and registration of State land exists. However, no implementation was carried out. The details relating rural land and the Forests Fund are still imprecise.

(c) The Ministry of Culture carried out a survey on cultural and historical heritage and protected zones. However, the recommended register was not established.

Recommendation 12.3:

(a) *The Government, in cooperation with the municipalities, should establish a list of geographic areas where a large number of development proposals exist or are expected in the near future; environmental assessment of these geographic areas should be given priority in order to avoid negative impacts on the environment from the privatization of urban property and market development. All municipalities should establish a unified database on city development;*

(b) *The Government of Georgia should pay special attention to the city of Tbilisi, which should streamline its planning and decision-making structure, and base its decision-making on a transparent, user-friendly multipurpose information database on city development; and apply its Rules of Land-use and Building Regulations and provide funding for the preparation of zoning maps.*

(a) Due to the lack of clear directives from the Government, the list of geographic areas where a large number of development proposals exist or are expected in the near future was not established. In this particular context, no environmental assessments were ever carried out, except for four major cities.

(b) Tbilisi streamlined its planning and decision-making structure, and based its decision-making on a transparent, user-friendly multipurpose information database on city development. Tbilisi applies the Rules of Land-use and Building Regulations. The preparation of zoning maps is ongoing.

Recommendation 12.4:

The relevant bodies should undertake the following steps in the further privatization of land in rural areas:

- *Carry out land surveys of areas that are to be privatized to obtain an accurate picture of their situation. This could be undertaken by the land management offices;*
- *Implement land-use planning projects based on these surveys;*
- *Register the boundaries of new agricultural units or State reserved lands in the cadastre. At this stage, the Government is the owner of these land parcels;*
- *Hire an independent appraiser and establish a market value of the farm unit and then offer it for auction with this market value used as a starting price.*

The municipalities know their territorial boundaries. However, the boundaries between State and municipality are not defined and are not clearly stated. This recommendation is still not implemented.

Recommendation 12.5:

(a) *The Government should clarify and simplify the institutional structure responsible for the privatization of urban land.*

(b) *Before further privatization, the urban areas where development pressures are strong, or are expected to become strong in the short term, should be quickly identified. This concerns in particular the*

central and historical areas of Tbilisi. In these areas, the Government and the relevant municipalities should give priority to providing quick, simplified development plans before privatization.

(c) The Ministry of Environment and Natural Resources Protection and the Ministry of State Property, in cooperation with the biggest municipalities, should draw up a list of areas required for, or to be held in reserve for, public sector development projects, as well as districts of cultural and historical heritage and green areas.

(a) The privatization of urban land is close to completion.

(b) This effort was carried out by the relevant municipalities such as Tbilisi, and the Ministry of Culture. When possible, as for the central and historical areas of Tbilisi, relevant municipalities identified urban areas under development pressures. In these areas, relevant municipalities give priority to providing quick, simplified development plans before privatization.

(c) The Ministry of State Property was abolished and the Ministry of Culture took responsibility in this field. The biggest municipalities established their own departments of State property. In 2004, the Ministry of Infrastructure and Development launched the elaboration of new urban planning documentation in six Georgian cities: Batumi, Poti, Kobuleti, Kutaisi, Gori and Signagi. In Tbilisi, new documentation was published in 2007.

Recommendation 12.6:

The Government should develop a national housing development strategy giving special attention to city development and new housing construction, strictly in accordance with environmental concerns, land-use and zoning plans.

In addition, the 2007 UNECE Country Profile of Georgia recommended the development of a national housing development strategy. This recommendation remains valid.

However, there has been a focus on spontaneous and ad hoc accommodation of internally displaced persons (IDPs), starting with the onset of internal conflicts in the beginning of the 1990s. Moreover, the development of the National IDP Strategy, launched by the Government in February 2006, was intended to provide long-term and durable tailor-made housing solutions for different categories of IDPs.

CHAPTER 13: Transport and environment

Recommendation 13.1:

The Ministry of Environment and Natural Resources Protection should initiate a study to be undertaken and supported by the TRACECA project, on the transit corridor development programme to assess the impact of integrating Georgia (and the other member countries) into the international transport system. The study should identify alternative routes, alternative technologies and mitigation measures.

The recommendation has not been implemented; as such a study has not been initiated although some efforts on transport projects intended for energy have been undertaken by the Ministry of Energy and the Ministry of Economy.

Recommendation 13.2:

The Government should set up a programme to implement the ban on leaded petrol, taking into account the needs of the existing car fleet.

No programme has been set up, because according to the Government the problem has become less acute due to the limited provision of leaded petrol to the country.

Recommendation 13.3:

The Ministry of Transport and Communications should ensure that the approved work plan is implemented, as outlined in Decree No. 302, and that progress is strictly monitored and reviewed.

This recommendation has been superseded by institutional and legal developments since the first EPR. Decree No. 302 is no longer valid, and the Ministry of Transport and Communications has been abolished.

Recommendation 13.4:

The Government should support Tbilisi municipality to:

- (a) *Prepare a transport-demand management plan based on strengthening demand for the most environmentally friendly transport modes and technologies. This plan should identify a battery of measures to encourage more efficient use of the existing transport system, thereby reducing total demand for transport by private car;*
- (b) *Subsequently implement, to the extent possible, all the transport-demand management measures;*
- (c) *Evaluate progress in managing the demand for transport on a yearly basis, to review accomplishments and to revise and improve subsequent demand-management measures.*

Active measures have been taken to encourage more efficient use of the existing transport system and reduce total demand for transport by car. The measures include the renewal of the bus fleet, which at the time of the review numbered 934 buses, only 240 of which are old, and the introduction in 2007–8 of new minibuses (up to 8 persons). Active measures have also been taken to improve traffic flow, through: (i) the creation of a new road dividing the city in two parts, within the framework of a project that started in July 2009 and is expected to be delivered for use by the public in August 2010; (ii) reconstruction of intersections to improve traffic flow, especially during rush hour (8 intersections, servicing 2,500–5,000 cars per hour are part of the programme); and (iii) the creation of a traffic control centre.

CHAPTER 14: Human health and environment

Recommendation 14.1:

The Ministry of Labour, Health and Social Affairs and the Ministry of Environment and Natural Resources Protection should:

- (a) *Jointly review the NEAP and NEHAP to ensure their mutual consistency and to set priorities for future action for environmental health management;*
- (b) *Develop health and environmental information systems in close collaboration so that they can be combined to monitor environmental health effects, to assess environmental health impact, and to support decision-making in environmental health policy. The Ministries should support the efforts of the Centre for Health Statistics and the Centre for Disease Control to improve health data quality and continue surveys to identify data quality problems, train personnel, establish computerized databases and implement procedures for data quality control. (See recommendation 3.1)*

This recommendation has been partially implemented.

- (a) The National Action Plan “Environment and Health” was adopted by Presidential Decree No. 326 in 2003 and more than 60 Sanitary Norms were enacted during 2003–2009 in this field.

Health promotion of the population is a joint responsibility of different governmental and non-governmental agencies, including line ministries, local and international organizations, and communities. At the national level, the key ministries with health-related responsibilities are recognized (Ministry of Labour, Health and Social Affairs, Ministry of Environment Protection and Resources, Ministry of Agriculture and Ministry of Education and Science). Several laws, governmental and ministry orders regulating issues related to health and environment promotion were adopted or revised after the Budapest Ministerial 2004, such as the 2005 Law on Preventive Measures against the Deficiencies caused by Iodin, Micro-nutrients and Vitamins, the 2007 Law on Food Quality and Safety, the 2007 Law on Public Health, the 2007 Law on Protection of the Population and the Territory from Natural and Man-caused States of Emergency, the 2007 Law on Environmental Impact Permit, the 2007 Law on Ecological Expertise and the 2008 Law on Tobacco Control. The existing legal framework addresses a wide array of health promotion issues including tobacco control, HIV/AIDs prevention, drug misuse, prevention of micro-nutrient deficiencies, and water and food safety. Although many necessary public health laws have been passed, enforcement systems are absent or extremely weak.

(b) The health status of the population is hard to assess due to difficulties associated with data collection for basic health indicators, but the social, economic and political upheavals of the early 1990s and civil war had a significant impact on the health and wellbeing of the population, and the overall health status of the country only began to recover at the beginning of the 21st century.

Recommendation 14.2:

The Ministry of Labour, Health and Social Affairs should monitor blood lead levels in children as an indicator of a reduction in exposure to lead.

This recommendation has not been implemented.

Recommendation 14.3:

The Ministry of Labour, Health and Social Affairs and the Ministry of Environment and Natural Resources Protection, in collaboration with other ministries, should protect public health by continuing actions to reduce the population's exposure to air pollution, in particular from vehicle exhaust fumes. Air pollution monitoring should be strengthened, and, in view of its relevance to health, PM10 should be monitored in the future.

This recommendation has not been implemented.

Recommendation 14.4:

(a) *The Ministry of Labour, Health and Social Affairs should develop a strategy for improving indoor environmental conditions. The first task is to collect information by conducting a representative survey in homes and other buildings. Restriction of smoking indoors to reduce exposure to environmental tobacco smoke is strongly justified for health reasons;*

(b) *The Ministry of Environment and Natural Resources Protection should conduct a nationwide survey of indoor radon exposure and use its results to develop a strategy to minimize the public health impact.*

This recommendation has not been implemented.

Recommendation 14.5:

The Ministry of Labour, Health and Social Affairs should:

(a) *Focus resources on the establishment of central and regional laboratories with expanded capabilities to diagnose a wide range of infectious diseases and detect bacterial, viral and protozoan pathogens in water and food samples;*

(b) *Concentrate resources to establish at least one well-equipped inter-agency laboratory for chemical analyses of environmental samples including water, ambient and indoor air, and soil.*

This recommendation has not been implemented.

(a) Infectious diseases are still significant public health problems, but particularly tuberculosis (TB), as both incidence and prevalence remain high. In 2006, TB prevalence for pulmonary and extrapulmonary types was 112.9, incidence 68.9 per 100,000 population, and overall TB rates have been growing since 1990, peaking in 1995 with a prevalence of 166.9 and incidence 86.6 per 100,000 population (Centre for Medical Information and Statistics 2007). TB incidence is particularly high in some regions, namely Adjara – 163.8; Samegrelo – 111.4; Guria – 110.9; and Tbilisi – 101.7. However, it is not clear whether recent increases in the incidence rate of TB reflect a deteriorating epidemiological status or better detection rates, given that the National Centre for TB Control has been working closely with international agencies to improve detection and treatment. Either way, TB rates are among the highest of the countries of the former Soviet Union, and the high prevalence of multi-drug resistant strains has become a serious public health concern.

A number of aid partners and international organizations have been putting an emphasis on the public health and health promotion activities in Georgia. The European Community (EC) is one of the major funders of the project “Health Promotion Strategy and Action Plan for Georgia” prepared in 2009. This strategy for the next five years is designed to give time to establish the new health promotion and disease preventive services and monitoring system, measure the baseline lifestyle and risk factor position, and then measure them again in three years. Towards the end of this five-year period, on the basis of an evaluation of progress made, the second phase of our strategic intent for promoting the health of the people of Georgia can be elaborated.

(b) Not implemented.