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REPUBLIC OF MOLDOVA

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Synopsis



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Preface

The Republic of Moldova is the first country that has been reviewed under the third cycle of EPRs. The third Environmental Performance Review (EPR) of the Republic of Moldova began in May 2012 with a preparatory mission. During this mission, the structure of the review report was agreed upon and the time schedule established. A review mission took place on 5-13 February 2013. The team of international experts taking part included experts from Estonia, Georgia, Germany and Slovakia, as well as from the EEA and ECE.

The draft EPR report was submitted to the Republic of Moldova for comment and to the ECE Expert Group on Environmental Performance Reviews for consideration in August 2013. During its meeting on 1-2 October 2013, the Expert Group discussed the report in detail with expert representatives of the Government of the Republic of Moldova, focusing in particular on the conclusions and recommendations made by the international experts.

The EPR recommendations, with suggested amendments from the Expert Group, were then submitted for peer review to the nineteenth session of the ECE Committee on Environmental Policy on 24 October 2013. A high-level delegation from the Republic of Moldova participated in the peer review. The Committee adopted the recommendations as set out in this report.

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

ECE would also like to express its appreciation to the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, and to the German Federal Environment Agency for their support to the EPR Programme through the Advisory Assistance Programme for Environmental Protection in the Countries of Central and Eastern Europe, the Caucasus and Central Asia; to Germany and the EEA for having delegated their experts for the review; and to the UNDP for its support of the EPR Programme and this review.

Executive summary

The second Environmental Performance Review (EPR) of the Republic of Moldova was carried out in 2005. This third review intends to measure the progress made by the Republic of Moldova in managing its environment since the second EPR and in addressing upcoming environmental challenges.

Gross Domestic Product (GDP) per capita in national currency terms more than doubled between 2005 and 2012 and GDP per capita in 2005 Purchasing Power Parity (PPP) US\$ terms grew an impressive 26.4 per cent from 2005 to 2011. Despite this growth the Republic of Moldova's GDP per capita remains the lowest in Europe.

The massive inflow of workers' remittances has played a very important role in the country's economic development. About 22 per cent of the Moldovan population resides outside the country – compared with a 3.1 per cent global average. In 2012, workers' remittances made up 22.8 per cent of GDP.

The total volume of air pollutants emitted from stationary sources decreased 24 per cent between 2005 and 2010. However, this positive development is not attributable to industry becoming cleaner than before but, rather, to the reduction in total volume of industrial production.

The total emissions of SO₂ more than doubled between 2005 and 2011 from 2,400 tons to 5,800 tons annually. Practically the whole SO₂ emissions increase was due to the increased emissions from transport.

Drinking water quality is deteriorating, despite the fact that total wastewater discharges decreased by 7.3 per cent from 2005 to 2011. The percentage of samples not meeting sanitary standards grew from 52 per cent in 2005 to 72 per cent in 2011 in the case of water taken from the centralized sources of water supply. The sanitary situation of the decentralized water sources has stayed at the disappointing level of 83 per cent of the samples failing to meet standards.

The amount of municipal waste in 2012 was about 1.9 times higher than in 2005. Generated industrial waste, on the other hand, was, in 2012, only 70 per cent of the 2005 level, mainly due to the contraction of manufacturing industry. The annual amount of recycled industrial waste fluctuates a lot. The recycling rate was 30 per cent in 2005 and 22 per cent in 2011. The end-of-year waste stock stored at the source increased from about 4.3 million tons in 2005 to 7 million tons in 2010.

The hazardous waste generated in 2012 was only 50 per cent of that generated in 2005. Hazardous waste accumulated in on-site storage facilities also diminished from 0.89 million tons in 2005 to 0.6 million tons in 2011.

The amount of timber harvested officially between 2006 and 2010 remained more or less stable, ranging between 410,000 and 440,000 m³/year, with about 90 per cent being fuel wood. Officially, all sites affected with logging were fully covered with regeneration works. At the same time, the estimated volume of wood consumed in the Republic of Moldova amounts to some 1.04 million m³ annually, with about 75 per cent being fuel wood.

The consumption of fuel wood is very high, due to a lack of alternative fuel supply, and almost matches the annual growth in the forest. Due to this high turnover, the forest in fact has no chance to age and thus the capabilities for increased biodiversity value are weakened.

Policymaking framework for environmental protection and sustainable development

The environmental legislation did not change substantively in the period under review as only a few environment-related laws were adopted. However, 25 environmental legislative acts and 35 by-laws are expected to be approved by the end of 2014 according to the 2012 Action Plan for the harmonization of the legislation with European Union (EU) directives. This process is expected to trigger a substantial reform of the entire environmental legal framework towards a more integrated approach to environmental protection.

Currently, there is no environmental strategy in the country. To close this gap a national environmental strategy for 2013–2022 was drafted and it is expected to be adopted. In addition, the Ministry of Environment is developing strategies for integrated waste management, biodiversity, water resources management and preventing natural disasters. They are expected to be submitted for adoption by the end of 2013.

Despite the institutional developments, sustainable development has not yet emerged as a core principle of policy development in the country. Promoting sustainable development is a difficult task for the Ministry of Environment considering that the country's environmental requirements are frequently seen as a liability rather than an asset for improving social well-being.

The term “strategic environmental impact assessment” does not exist in the national legislation. The Republic of Moldova signed but has not ratified the Protocol on Strategic Environmental Assessment (Kiev, 2003) to the Espoo Convention on Environmental Impact Assessment in a Transboundary Context.

Regulatory and information instruments and their enforcement

In the field of compliance and enforcement of environmental standards and requirements, moderate progress has been made by the country since 2005. On water and air, environmental quality standards from Soviet times are still used. A huge number of standards are not in line with current international requirements. Numerous regulated pollutant substance regulations are mostly unenforceable, as they are far beyond realistic monitoring capacities.

Environmental permits are still based on single-medium approaches and do not consider the overall environmental impact of economic activities. As a result, an operator of an economic activity may need to obtain a range of environmental authorizations, sometimes from a series of public authorities. The same permitting system is used for all enterprises regardless of their size and pollution potential. The issuing of permits for pollution of the environment and use of natural resources is performed by different institutions.

The current national environmental legislation on industrial emissions lacks a systematic approach and is being focused on regulating the protection of the environment in all sectors separately. An integrated approach to environmental compliance is still under development.

Economic instruments and financing of environmental protection expenditure

The system of environmentally related taxes and charges has not changed since 2005. These payments generate revenues for the environmental funds, but there is no supporting evidence that they provide significant incentives, if any, for pollution abatement. The system of taxes for emissions of air pollutants from stationary sources and for discharges of water pollutants is administratively complex due to the very large number of pollutants that are covered. This significantly weakens the effectiveness of the system.

Separate charges for import of plastic packaging and for tetra-pak packaging that contains products (except dairy products) were introduced in 2007. The tax base (customs value) for the product charges on imports of goods is also neither pollution oriented nor related to the costs of damage prevention. These product charges are, moreover, not applied to similar domestically produced goods.

Market-based instruments (such as trading of emission permits) are not applied. A scheme for the promotion of renewable energy sources is under development. There is no legal framework yet for public sector green procurement or for eco-labelling.

The installation of individual water meters has increased significantly and reached 96 per cent of all connected water users. The average bill collection rate is 82 per cent, pointing to problems of enforcing payment of water bills. There appear, however, to be serious problems – notably in Chisinau – with the quality of meters installed in the past, which are seen to lead to a systematic underrecording of cold and hot water consumption, which, in turn, entails significant losses for the Chisinau water company and the local district heating company.

Environmental monitoring, information and education

An integrated environmental monitoring system is not yet established in the country. Currently, the monitoring landscape remains fragmented with many institutions involved in the process and limited information sharing between them. However, comparatively with 2005, significant progress was registered in some areas such as water monitoring, especially for surface waters. Some improvements were registered in other areas such as forests and protected areas, soil and radioactivity. Mixed progress is registered in air monitoring, with limited monitoring capacity of urban air quality. Biodiversity is also lacking systematic monitoring, with fragmented or non-systematic activities carried out by various organizations.

The country lacks a national environmental information system as such. Government bodies have their own databases of relevance for their domain and in practice limited sharing or exchange takes place between them.

Coordination at the institutional level (both national and local) remains poor with non-systematic information exchange between them. Currently, none of the institutions involved in or responsible for environmental information exchange is using a networked relational database for storing and exchanging data. Good progress is observed in terms of public access to statistical data, including environment-related data. Statistical data are available free of charge on the website of the National Bureau of Statistics (NBS). Furthermore, since 2010, a publication containing environment-related statistics for the country, “Natural resources and the environment”, has been prepared annually by the NBS and is available online.

Environmental education is present in the school curricula throughout the whole education process. Nevertheless, responsibilities for the area and the institutional competences are often unclear, not systematic and underfunded. Environmental education and education for sustainable development remain heavily dependent on donor support.

Implementation of multilateral environmental agreements and management of foreign assistance

The highest political priority is currently the partial approximation to the EU, the signing and then the implementation of the EU–Republic of Moldova Association Agreement. The negotiations started in January 2010 and are expected to conclude by the end of 2013. Implementation of multilateral environmental agreements (MEAs) has benefited from the preparation of legislation to harmonize the country’s legislative situation to the requirements of different EU environmental directives.

In 2005, the Republic of Moldova reconfirmed its commitment towards the implementation of the Millennium Development Goals (MDGs). However, in 2006, the country had already revised all the targets set under MDG7, with the exception of afforestation. The main reason for this was the slow progress in reaching the targets set.

The country generally complies with reporting on the implementation of MEAs, with the exception of the Protocols on Persistent Organic Pollutants (POPs) and on Heavy Metals to the Convention on Long-range Transboundary Air Pollution.

Climate change mitigation and adaptation

The country lacks a national strategic framework on climate change mitigation and adaptation, although sectoral strategies of climate change relevance have been developed in some cases. The development of a national climate change adaptation strategy and a low emissions development strategy started in 2010 with the aim of addressing this major gap in the country’s policy framework. However, the development of these two strategies was still ongoing in 2013.

The National Energy Efficiency Programme for 2011–2020 is currently the main document dealing with energy efficiency. NEEP is supported in its implementation by three-year national action plans for energy efficiency. Although the legal framework for renewable energy has been created, a major obstacle to implementing renewable energy policies is the high cost of producing energy from renewable sources.

The 2008 National Strategy for Sustainable Development of the Agro-industrial Sector for the period 2008–2015 provides a series of measures aimed at combating land degradation through afforestation and creating new vineyards and orchards that may have an impact on the level of carbon sequestration and reduce greenhouses gas (GHG) emissions. The 2011 National Programme for Conservation and Improvement of Soil Fertility for 2011–2020 provides for measures to prevent soil erosion by restoring green manure for soil protection, afforestation of degraded, highly eroded sloping grassland, and promotion of cultivation of grassy crops between rows in orchards and vineyards.

Sustainable water management

A policy framework on water management seems to be in place. The 2007 Strategy of Water Supply and Sanitation of Communities sets out specific medium-term (2008–2012) and long-term (2012–2025) objectives. However, the Strategy lacks a national water action plan and lacks financing.

Access to sewerage systems is increasing slowly, from about 42 per cent in 2005 up to about 50 per cent in 2012. With such slow progress the country will hardly meet its national MDG target of 65 per cent of the population with access to improved sewerage set for the year 2015.

The situation regarding wastewater treatment in the country is very bleak. In 2010, only 17 of 198 wastewater treatment plants (WWTPs) (9 per cent) were in a satisfactory state, 112 (56 per cent) require repair and 69 (35 per cent) required full refurbishment. Most WWTPs operate de facto with mechanical treatment only. As a result, discharges from WWTPs into water bodies contain organic substances, ammonium and nitrates. A lot of industrial WWTPs are old and obsolete. Currently, a huge amount of untreated industrial wastewater is discharged into rivers.

Waste management

Waste management in the Republic of Moldova has developed only moderately since 2005. The current waste management practice relies on disposal in dumpsites. These are, in the majority of cases, small, uncontrolled and operating without an environmental permit.

Good progress is observed in reducing the number of illegal dumpsites. As a result of the efforts of environmental authorities, the total area under unauthorized dumpsites has decreased from 61 per cent in 2001 to only 31 per cent in 2009. The total number of unauthorized dumpsites also recorded a downward trend from 1,356 in 2001 to 854 in 2009 and their share of all dumpsites from 73 to 46 per cent.

Although there is no national approach to material recovery from municipal solid waste, a number of private companies are introducing systems for collection of recyclables. However, the main source of secondary raw material in the Republic of Moldova is waste from paper or plastic production. Also, several municipalities are introducing separate collection of recyclables in the form of pilot projects.

International donors increased their involvement in waste management during the last few years and this resulted in improvements in the management of obsolete pesticides and expired chemicals, but overall management of municipal and manufacturing waste is developing slowly and old practices remain.

Biodiversity and protected areas

Only about 2 per cent of the country's grassland ecosystem is still covered by natural or semi-natural habitats. This low percentage is additionally fragmented; intensive agriculture has pushed the ecological integrity of steppe habitat to its limits. Currently, natural steppe communities have been preserved only in small and isolated areas; five protected areas preserving steppe vegetation exist, with a total area of less than 1 per cent of the country's surface. This figure is too low to protect the gene pool of steppe plant communities in the Republic of Moldova. The biodiversity of the steppe has been particularly altered and affected due to intensive grazing, soil erosion and salinization, and intensive use of fertilizers.

The lack of viable habitats of significant size is certainly the most significant threat to biodiversity of each of the country's ecosystems providing the required space for in situ conservation. The status of flora diversity, in particular in steppe ecosystems, remains unsatisfactory throughout the country due to intensive agriculture.

Invasive species are posing another threat. Of the invasive plant species, about 130 species are damaging crops and 15 species are damaging trees. Annual losses in agriculture that are caused by invasive species are from 5 to 10 per cent of cereal crops, 15.2 per cent in weeding plants and 25 per cent of multicultures.

The negative consequences of intensive land use remain unchanged in comparison with 2005. These include erosion and landslides, conversion of steppe, soil salinization and drainage of wetlands or improper grazing management. Yet, a steady development of organic agriculture is leading to the creation of favourable conditions for biodiversity conservation.

Since 2005, wetlands have received significant attention, reflecting the economic and ecological importance of the ecosystem. The designation of three wetlands of international significance – Ramsar sites – offers the chance for increased species and habitat conservation measures.

Between 2007 and 2010 the Agency "Moldsilva" undertook several activities to restore or establish forest/wooded lands. Activities for forest regeneration (replantation of trees) on the National Forest Lands (NFL) took place on about 3,500 ha. Additionally some 20,000 ha of degraded sites, not previously forested, have been afforested as an approach to combat desertification and erosion as well as provide alternative fuel wood sources. On some 10,000 ha of the NFL "natural regeneration" was supported.

Agriculture and environment

Agriculture remains one of the main economic sectors despite its GDP share having diminished from 19.1 per cent in 2005 to 14.4 per cent in 2011. In 2011, agriculture employed about 28 per cent of the labour force. Agro-food exports constitute about 45 to 50 per cent of total exports and are backed by the export-oriented agro-processing industry, which produces approximately 7 to 8 per cent of GDP.

The land use structure in the country has not changed significantly since 2005. The land cover under orchards decreased by 22.2 thousand ha (some 14 per cent) and that under pastures by 20.4 thousand ha (5.5 per cent). At the same time, the land cover under forests increased by 23.6 thousand ha (some 5 per cent) and fallow lands by 24.1 thousand ha (some 240 per cent). This illustrates the process of many owners abandoning land. On some of the abandoned land natural reforestation takes place.

The most severe drought in the Republic of Moldova in living memory took place in 2007, impacting upon 80 per cent of the country's territory and including widespread crop failures and food shortages. Household production from home gardens, a mainstay of food supply for most rural families, also reduced sharply. In monetary terms the losses for the agricultural sector were estimated at close to US\$1 billion. The greatest losses were experienced by fruit and vegetable growers (US\$550 million), livestock producers (US\$305 million) and cereal growers (US\$132 million).

Since 2005, areas affected by soil erosion remain at the same level. Soil degradation is estimated to cause US\$239 million in economic damage each year, including losses from erosion, landslides and in ravines, and agricultural production losses. Subsistence farming households, which cannot afford to address the problem, are particularly affected by erosion and soil fertility losses.

CONCLUSIONS AND RECOMMENDATIONS

Chapter 1: Policymaking framework for environmental protection and sustainable development

The approximation process to the European *acquis* is at an early stage of development in the environmental area. Because of political instability over recent years, the effectiveness of the parliament's legislative work has declined. Despite the intensive drafting of legislation within governmental institutions, law endorsement by the parliament takes a long time. The draft environmental laws have been under consideration for two years.

Recommendation 1.1:

- (a) The Government should promote the adoption by the parliament, without further delay, of the draft environmental laws based on the priority list prepared by the Ministry of Environment;*
- (b) The Ministry of Environment should ensure the development of the relevant secondary legislation.*

Environmental dimensions have been included in several strategies, programmes and plans. The 2007 GD No. 33 on the procedures and rules for the elaboration of policy documents requires, inter alia, the monitoring and evaluation of implementation of policy documents. Despite this, it is hard to find any report on the progress of implementation of these policy documents. Progress reports are available for the policy documents the implementation of which is funded by donors.

Recommendation 1.2:

The Government should ensure that progress reports on the implementation of the environment-related national strategies and programmes are prepared and made available to the public.

The term "strategic environmental impact assessment" (SEA) does not exist in the national legislation. However, the 1996 Law on Ecological Expertise and Environmental Impact Assessment requires the assessment of environmental impacts of programmes, plans, schemes, strategies and concepts. The Law does not incorporate provisions on procedures to decide when and which plans or programmes require SEA.

Recommendation 1.3:

The Ministry of Environment should ensure the necessary arrangements for strategic environmental assessment (SEA) procedures to be included in the environmental legislation, taking into account the importance of SEA for the appropriate design of policy documents and the requirements of the European Union (EU) approximation process.

The National Council for Sustainable Development and Poverty Reduction was established in 2002 as a consultative body on socioeconomic sustainable development of the country. The Council formally functioned until 2008 but its activities had no meaningful results. Since 2009 the Council has not been active.

Recommendation 1.4:

The Government should reactivate the National Council for Sustainable Development and Poverty Reduction to promote sustainable development principles in all sectoral activities.

Although, since 2005, the staff of the central apparatus of the Ministry of Environment doubled, from 25 to 51, there is still a lack of capacity in terms of human resources. Different units have overlapping functions and the effectiveness of the functioning of the Ministry is questionable.

Recommendation 1.5:

The Government should, once the Environmental Protection Strategy has been adopted, revise the structure of the central environmental authorities to avoid the overlapping of functions and to make the institutional structure more effective by, in particular, the creation of an Environmental Protection Agency as an executive body for monitoring, information exchange and permitting under the Ministry of Environment.

Chapter 2: Regulatory and information instruments and their enforcement

The 2005 EPR recommended the Ministry of Environment draft legislation for the introduction of an integrated permitting system. This has been fulfilled by drafting a law on environmental protection based on the principles of EU Directive 2010/75/EC (Industrial Emissions Directive). However, the law has still not been adopted. The recommendation on better use of three environmental assessment instruments (SEA, EIA and Public Environmental Expertise) and increasing public involvement in environmental decisions still needs to be implemented.

The recommendation on increasing the level of administrative fines has been implemented in practice. The level of fines is periodically raised and the relevant legislation reviewed. The total amount of fines imposed has risen 14 times during the period 2005–2012. The introduction of environmental damage assessment based on actual remediation costs still needs to be implemented.

The recommendation on improvement of compliance control has been partly implemented. During the years 2007–2010, 57 training sessions were organized in which 493 environment inspectors participated. The analytical laboratory of the Inspectorate was strengthened from a technical and methodological viewpoint. An accreditation system for analytical laboratories was established. In the field of air protection, industries were ranked according to their influence on air quality (Order of the Ministry of Environment No. 110 of 17 December 2010). However, the recommendation to assess the effectiveness of enforcement by improving the indicators which allow measuring both environmental improvements and enforcement results has not been implemented.

The environmental permitting system and the corresponding enforcement measures in the country fall short of international standards.

With important draft legislation and related secondary legislation advancing, further progress can be expected in the coming years. There is an urgent need to integrate environmental considerations into sectoral policies. The implementation of environmental requirements is underdeveloped because the environment is not considered a national priority. As the environmental permitting and inspection activities are within the same institution (SEI), there is potential for conflict of interest. Institutional reform in the permitting and enforcement area is necessary.

Recommendation 2.1:

The Ministry of Environment should reform the system of issuing permits and assuring compliance by separating the permitting and inspection functions.

The environmental permitting system does not provide for an integrated approach to pollution control and the use of best available techniques (BAT). Permit requirements are based on end-of-pipe solutions and separate permits are issued for each environmental medium. Emission standards (with the exception of urban waste water treatment plants) are not used for permitting and the dispersion or dilution calculations are the basis for setting the limits. Self-monitoring requirements are not included in the permits. The permit application process is not transparent and the issued permits are kept in paper format by the authority issuing them.

Recommendation 2.2:

The Ministry of Environment should reform the system of issuing environmental permits by:

- (a) Introducing integrated permitting for key industries, with emission limit values set directly in the legislation;*
- (b) Introducing best available techniques (BAT) as a basis for permitting;*
- (c) Establishing product standards in certain areas and avoiding the use of dispersion calculation within the permitting procedure;*
- (d) Introducing self-monitoring requirements in the permits;*
- (e) Making summaries of the applications for permits and issued permits available to the public.*

Enforcement requires capacity and expertise on the part of the Ministry of Environment and SEI in order to fully meet international standards. The regulatory system does not monitor and control the implementation of

the environmental requirements in a practical and cost-effective manner and to ensure that the new legislation is implemented and enforced as intended. This may involve a substantial change of organizational culture on the part of both the Ministry of Environment and SEI. At present, the focus is on the Ministry and SEI as “enforcers” of environmental protection regulations, rather than the European model of “managers” of environmental resources for the benefit of society. In other words, the focus is on a command-and-control approach to environmental legislation. So far, enforcement measures fall short of international standards.

Recommendation 2.3:

The Ministry of Environment should reform the compliance assurance mechanism by:

- (a) Making the level of fines for non-compliance proportional to the profit gained through violation of legislation;*
- (b) Introducing risk-based inspection planning;*
- (c) Making the environmental inspection reports of enterprises, as well as the self-monitoring environmental data submitted by them, available to the public;*
- (d) Foreseeing criminal prosecution for the violation of environmental laws and regulations.*

The implementation of international standards and practices is not fully supported by competent institutions and endorsed by increased public awareness, public participation and the credible enforcement of new legislation. While the 1996 Law No. 851-XIII on Ecological Expertise and Environmental Impact Assessment provides for public environmental expertise, this mechanism is rarely applied and does not result in desired outcomes.

Recommendation 2.4:

The Ministry of Environment should further improve the functioning of the mechanism for public participation in environmental impact assessment (EIA) by:

- (a) Establishing a detailed procedure, including a public consultation procedure, for review by the public of the EIA documentation on proposed activities;*
- (b) Ensuring that the public comments and opinions are taken into account in the decision-making process.*

Chapter 3: Economic instruments and financing of environmental protection expenditure

Since 2005, the system of payments for environmental pollution has been maintained without any significant changes. These payments generate revenues for the environmental funds, but there is no supporting evidence that they provide significant incentives, if any, for pollution abatement.

The system of taxes for emissions of air pollutants from stationary sources and for discharges of water pollutants applied in the Republic of Moldova is administratively complex due to the very large number of pollutants that are covered. This significantly weakens the effectiveness of the system. Charge rates (per ton), moreover, have remained broadly stable at a low level over the past decade or so and have been eroded by inflation. Payments for emissions from mobile air pollution sources are applied in the form of an ad valorem excise on the import value of motor fuels. The tax base is, therefore, not at all pollution oriented, leaving aside the fact that the tax rates applied are very small and have not changed over recent years. The upshot is that this tax, in contrast to the specific excise on petrol and diesel (established in the Tax Code), has not had any impact on motor fuel price developments over the past years.

The pollution charges on the storage and disposal of enterprise waste are biased towards storing toxic and non-toxic waste on enterprise premises, and this does not create any incentives for significantly reducing waste generation. The rationale for this tax is not obvious once it has been ascertained that waste has been stocked according to established regulatory standards.

The tax base (customs value) for the product charges on imports of environmentally harmful products is also neither pollution oriented nor related to the costs of damage prevention. These product charges are, moreover, not applied to similar domestically produced goods.

Furthermore, the tax rates are, in general, very low. The upshot is that the role of the current system of payments for pollution is limited to generating revenues for the environmental funds.

Recommendation 3.1:

The Government should undertake comprehensive reform of the system of pollution charges in order to provide significant incentives for pollution prevention and abatement, and a sound basis for environmental financing and, notably:

- (a) Apply pollution charges only to major air and water pollutants;*
- (b) Establish a credible timetable for raising emission charge rates to levels that provide effective incentives to reduce pollution;*
- (c) Abolish the ad valorem charges related to mobile pollution sources, given that the tax base is not pollution oriented;*
- (d) Introduce specific charges per unit of imported environmentally harmful products (i.e. not based on their import value) and also apply similar product charges to these products that are domestically produced, including for the handling of electric and electronic equipment waste;*
- (e) Identify and eliminate, step by step, environmentally harmful subsidies;*
- (f) Create effective incentives for enterprises to manage production waste in an appropriately regulated and monitored manner.*

Although tariffs for water supply and sanitation have increased significantly over recent years, they are, in general, not yet at a level that allows for recovery of operating and maintenance costs, let alone depreciation allowances. There are, moreover, sizeable cross-subsidies flowing from enterprises to private households. ANRE has developed a methodology for determining the level of cost recovery tariffs, which municipal councils are, however, unwilling to apply for reasons of local policy. In the event, the operations of the water companies are not financially sustainable and the water supply and sanitation infrastructure has progressively deteriorated. In a similar vein, the municipal waste services need to be upgraded to move progressively closer to international standards. This will not be possible without adequate fees for municipal waste collection and disposal.

Recommendation 3.2:

The Government should:

- (a) Review the current system of tariff setting for water supply and sanitation services with a view to transferring tariff setting to an independent regulatory body that applies cost-recovery standards;*
- (b) Encourage local governments to ensure that municipal waste fees allow for recovery of the increasing costs of waste services, given that these have to meet progressively higher environmental standards;*
- (c) Ensure, within the framework of the reformed targeted social assistance policy, that low-income households have adequate access to water and waste services as well as other communal services.*

There are several public sector funds in the Republic of Moldova that are financing environmental protection and other sustainable development projects. The major domestic actor is the National Environmental Fund (NEF), which finances projects from a number of earmarked taxes and other charges. There are, moreover, projects that are directly financed by grants and loans from international donors. The level of domestic environmental protection expenditure has increased in recent years, but overall it has remained quite low relative to the considerable financial resources required to adequately address the looming environmental challenges, including wastewater management. Moreover, the future of the earmarking of specific revenues for the environmental funds is uncertain, given the stipulations of the new draft public finance law. Furthermore, there is lingering criticism about the functioning of the NEF, including the extent of coordination between the NEF and the NFRD.

Recommendation 3.3:

The Government should:

- (a) Reform the National Environmental Fund, taking into account international experiences and standards in areas such as public procurement, transparency requirements and decision-making structure;*

- (b) *Strengthen the capacity of the Ministry of Environment to develop effective and economically sound environmental investment programmes, which is a necessity for making its voice better heard in the state budget planning process;*
- (c) *Strengthen the coordination and cooperation among the relevant ministries and government agencies to ensure that programmed activities by the various actors in the environmental sector (including foreign aid donors) avoid duplication and are aligned with the overall priorities set in national development and sectoral strategies.*

Chapter 4: Environmental monitoring, information and education

The State Hydrometeorological Service (SHS) has, in recent years, become the centre of excellence for environmental monitoring and laboratory analysis supported by a functioning information and dissemination system. The Agency for Geology and Mineral Resources (AGMR), in its turn, has continued to operate almost unchanged for the past 20 years and faces increased difficulties in providing the Ministry of Environment with reliable information.

There is some progress in the process of harmonization with international standards, in particular for water (surface water, drinking water, etc.). Concerning air, the old standards are still in place but with a reduced number of parameters monitored and with additional parameters gradually introduced according to international standards. The Ministry of Environment faces a great deal of difficulty in handling the environmental data and information it receives as it does not possess a dedicated unit able to receive and process all this information. There is no monitoring on noise and vibration in the country. Neither is there a monitoring system for biodiversity. There is no national environmental information system as such in the Republic of Moldova.

Recommendation 4.1:

The Ministry of Environment, in partnership with the relevant public authorities, should gradually develop an effective system of integrated environmental monitoring and information management at the national level, by applying the Shared Environmental Information System principles, and should secure funding from national resources and establish effective coordination to that end.

Concerning environmental data and their public accessibility, some progress is observed in recent years, in particular in electronic storage and dissemination. Leading in this area are the NBS and the SHS, with most of their information available online. The launch in 2011 of the Government's web portal, and its continuous development, is one of the achievements in terms of transparency, access to information and public awareness. All public institutions, the environment-related ones included, have websites, with a wide range of information available for the public. The common "look" of various websites and the use of similar IT applications makes navigation easy and increases the usability of environmental information by the public at large.

Environmental reporting activities, with the exception of the national SoER, remain event driven and donor supported. There is no continuity or follow-up reporting in most cases and a lot of good and useful initiatives remain one-off exercises. The national SoER is primarily a scientific compilation rather than a policy-driven tool; therefore, its practical use remains limited. No regular information flows or databases are behind its preparation, the process having an ad-hoc character each time. Modern assessment tools such as indicators, scenarios or forward-looking studies are not used.

Recommendation 4.2:

The Ministry of Environment should transform the national state-of-the-environment reports into policy-relevant reports by the application of internationally agreed guidelines on the matter.

International assistance and national allocations from the environmental funds support various initiatives and projects concerning environmental education. Many NGOs throughout the country are active in the field of environmental education and related capacity-building activities. In spite of the efforts made by both the Ministry of Environment and Ministry of Education, a strategy for education for sustainable development has failed to materialize in the Republic of Moldova. The chances of having such a strategy in the future remain slim.

Recommendation 4.3:

The Ministry of Education and the Ministry of Environment should use the process of the development of a programme on environmental education and awareness-raising to start a debate, involving all stakeholders, including the mass media and non-governmental organizations (NGOs), on the priorities for the promotion of education for sustainable development (ESD) in the country.

Chapter 5: Implementation of international environmental agreements and commitments

The implementation of MEAs in the Republic of Moldova is strongly dependent on international financial support. Seven offices were established to support the implementation of various MEAs. However, their role is wider and they participate with, and often replace, the Ministry of Environment in developing strategic documents.

Recommendation 5.1:

The Government should take over the responsibilities for implementation of multilateral environmental agreements (MEAs) and, upon consent with the donor community, integrate the existing offices for the implementation of MEAs into the recommended Environmental Protection Agency.

The country shows some progress in the preparation of the legislative framework to harmonize its legislation with the international regime, in particular with the MEAs to which the Republic of Moldova is party. The draft laws on water, environment and chemicals are examples. On the other hand, this progress is not as evident in the implementation of the policies and legislation adopted for the implementation of the MEAs.

Recommendation 5.2:

The Government should:

- (a) Ensure the sustainability of policies adopted to implement the MEAs to which it is a party;*
- (b) Assess the needs, costs and benefits of other relevant MEAs before joining them so as to be able to commit the necessary resources for their sustainable implementation.*

Since 2005, the Republic of Moldova has moved towards increased coordination of its environmental policies with the implementation of MEAs. In addition, the country has put efforts into streamlining the approval of project proposals or implementation plans prepared under different international agreements and forums. Despite the efforts made so far to increase internal cooperation and coordination among the authorities, information sharing is still weak. This is also the case when it comes to sharing information between different departments in the Ministry of Environment.

Recommendation 5.3:

The Ministry of Environment should:

- (a) Build synergies among working groups coordinating the implementation of the MEAs;*
- (b) Facilitate direct communication between staff of the Ministry of Environment who are in charge of the implementation of MEAs and scientific institutions, including subordinate bodies.*

Chapter 6: Climate change adaptation and mitigation

The Ministry of Environment has so far played a limited role in climate-change-related policy formulation and implementation. In practice, much of the policy formulation work, in addition to the preparation of national communications and the national GHG inventory, has been undertaken by the Climate Change Office, a project implementation unit under the umbrella of the Ministry of Environment. As such, the Climate Change Office is overburdened with duties that far exceed its mandate, and limited resources, by being heavily involved in policy development.

Recommendation 6.1:

The Government should strengthen its capacity to formulate climate change policy by creating a dedicated section on climate change within the regular structure of the Ministry of Environment.

Promoting climate change considerations in other areas of economic and social activity remains a much needed objective for guaranteeing not only economic resilience but also public health and social well-being. Effective intersectoral cooperation, in particular interministerial cooperation, is a prerequisite for achieving this goal. In reality, there is no high-level body that would be entrusted with strategic planning and high-level coordination of climate-change matters, although the National Commission for the implementation and realization of the commitments under the UNFCCC and of the mechanisms and provisions of the Kyoto Protocol could play this role, based on its founding act.

Recommendation 6.2:

The Government should strengthen the institutional role of the National Commission for the implementation and realization of the commitments under the United Nations Framework Convention on Climate Change (UNFCCC) and of the mechanisms and provisions of the Kyoto Protocol, by entrusting the National Commission with promoting the effective integration of climate change considerations in relevant economic sectors.

As of today, there is no climate change policy framework formally in place on either adaptation or mitigation, although the Republic of Moldova was making efforts to develop strategies on these issues. Due to weaknesses in the formulation of these strategies, however, there is a sense that funding for projects on the ground is generally lacking. The draft adaptation strategy contains actions for the future, without, however, identifying the sources of funding. Implemented projects on adaptation are almost exclusively funded by external sources.

Recommendation 6.3:

Once the national strategies on climate change mitigation and adaptation have been approved, the Government should ensure their implementation and make the necessary funding available from national sources, as well as through co-financing by donors.

There is evidence that the level of public awareness on climate-change-related issues in the Republic of Moldova is low. This is partly due to the fact that efforts at raising the level of awareness are project based. There is a lack of a coordinated and coherent national plan for raising public awareness.

Recommendation 6.4:

In the implementation of both the low emission development strategy and the climate change adaptation strategy, once these have been adopted, the Government should pay attention to raising the level of public awareness on climate change issues and therefore strengthen public participation in this area.

Chapter 7: Sustainable water management

In some regions of the Republic of Moldova, water resources are limited and often polluted by anthropogenic activities. Currently, water resources management does not meet requirements due to the lack of a comprehensive legal framework, financial resources and institutional coordination and cooperation.

From 2013, the 2011 Law No. 272 on Water and its secondary legislation could be the key element for essential transformation of the water sector. Following the first step of developing a comprehensive legal framework, the next step could be the coordinated implementation of the water legislation, in the near future.

Recommendation 7.1:

To implement the 2011 Law No. 272 on Water, the Ministry of Environment should:

- (a) Increase the capacity of the water departments within the Ministry of Environment and subordinate institutions;*
- (b) Improve cooperation between the relevant institutions;*
- (c) Ensure enforcement by a competent authority.*

There are various governmental institutions involved in the collection, management, assessment and dissemination of data related to water, but there is still poor cooperation among them. The exchange of data is sporadic and limited. A first step in centralizing data storage in the water sector was taken with the introduction

of the water cadastre. However, the State Water Cadastre does not contain all relevant data and is available to neither all stakeholders involved in the water sector nor to the public.

Recommendation 7.2:

The Ministry of Environment, in cooperation with the relevant authorities, should ensure that the State Water Cadastre is fully operational and publicly accessible.

In the Republic of Moldova's water sector, different strategies have been developed to achieve aims established by national or international policies. Most strategies are not implemented. However, one of the main reasons for this is the lack of a national action and investment plan for the water sector, in which projects would be listed and prioritized. Due to the limited financial resources available from domestic sources, the Republic of Moldova's water sector relies on international support. An action plan with an integrated investment plan would improve the effective investment of limited national funds; moreover, it could be a sound basis for international donors to invest in the Republic of Moldova's water sector and diminish the ongoing financing gap.

Recommendation 7.3:

The Government should develop an action plan for the water sector, accompanied by an investment plan, to implement the revised Strategy on Water Supply and Sanitation for Communities (Water Strategy) and to reach national targets set in accordance with the requirements of the Protocol on Water and Health, and ensure adequate funding for monitoring and evaluation of the implementation of the action plan.

Water resources are increasingly under pressure from the growing population in cities, economic activity and intensifying competition among water users. Responsibilities for the prevention of pollution of ground and surface water rest on different stakeholders. The lack of an integrated water resource management plan at the national level leads to uncoordinated water resource development and management and, consequently, to the ongoing pollution of water resources.

Recommendation 7.4:

The Ministry of Environment should promote a wider integrated water resource management process coordinated with the implementation of the revised Water Strategy. To this end, among other matters, it should strengthen river basin management offices, which are responsible for the development of river basin management plans, taking into consideration watershed protection and the development of small intake waters.

Many existing sewerage systems are old and their material degradation tends to allow the exfiltration of wastewater, which causes the pollution of groundwater. Existing WWTPs do not function properly due to technical problems, on the one hand, and their inappropriate size, on the other. As a result, treated wastewater does not often comply with quality standards and is one of the main polluters of surface water.

Recommendation 7.5:

The Government, in cooperation with local authorities, should assess the current situation of sewerage systems in urban areas and wastewater treatment plants (WWTPs) and, based on the results, ensure adequate funding for the rehabilitation and modernization of sewerage systems and WWTPs.

Chapter 8: Waste management

The current Law on Production and Consumption Waste is outdated, and although a draft law on waste management was prepared, its adoption is delayed. In combination with the new National Waste Management Strategy, this draft law is urgently needed to define new standards and strategic priorities for future waste management and introduce modern waste management principles in the Republic of Moldova. The new law is expected to introduce new duties and responsibilities, which require strong institutional support, otherwise its implementation will be limited.

Recommendation 8.1:

The Government, in cooperation with local authorities, should work on:

- (a) *Promoting the adoption of the law on waste management by the parliament;*

- (b) *Developing the relevant secondary legislation to implement the internationally recognized waste management priorities and good practices;*
- (c) *Implementing the 2013 National Waste Management Strategy.*

Recommendation 8.2:

Once the law on waste management has been adopted, the Government should strengthen the central national authority dealing with waste management, enabling it to support the implementation of the law and the National Waste Management Strategy.

Although an efficient system of waste statistics has already been introduced, classification of waste is not in line with international practice, such as under the Basel Convention and EU norms, especially in the definition of hazardous properties of waste. The current system still uses four toxic waste classes which are not in accordance with international practice.

Recommendation 8.3:

The Ministry of Environment, together with the National Bureau of Statistics, should implement waste classification based on the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, together with new reporting forms, taking into account the relevant EU waste classification.

The private sector in waste management is developing, especially in collection and processing of secondary raw materials. However, cooperation between traditional municipal waste schemes and new private initiatives is not optimal. There is a space for benefiting from private activities by the creation of public–private partnerships in the modernization of waste management, especially in Chisinau.

Recommendation 8.4:

The Government should secure funding for the implementation of the 2013 National Waste Management Strategy and investigate involvement of the private sector by forming public–private partnerships in waste management.

Disposal of waste in the Republic of Moldova urgently needs improvement. The main problem is the lack of standards for operation and monitoring of disposal sites. This leads to weak governmental supervision of waste management. The basic tool for regulation of the operation of waste disposal sites is operating permits, but these are not used in the country.

In addition, the current temporary dumping of municipal waste at the site near the transfer station in the vicinity of Chisinau may result in severe environmental problems. Finding an appropriate, environmentally and socially acceptable solution to permanent safe disposal of waste generated by Chisinau should be a high priority of waste management in the Republic of Moldova.

Recommendation 8.5:

The Ministry of Environment should introduce regulations for the operation and monitoring of waste disposal sites and introduce procedures for issuing permits for operation of disposal sites based on those regulations and EIA requirements.

Chapter 9: Biodiversity and protected areas

Since 2007, the legal framework for nature conservation has been improved. Innovative international projects supported the development of regulations, allowed assessment of biodiversity and nature conservation management, and contributed directly to PA management and reforestation. However, ambitious goals are not fully supported by the regulatory framework and implementation remains behind targets. A lack of resources and capacity, together with weak intersectoral cooperation and institutional settings, certainly play a role in this.

Three main fields of recommendations can be outlined, all of particular importance if the Republic of Moldova intends to associate with EU standards and requirements: i) regular monitoring and research as an improvement on basic data; ii) optimizing and streamlining PA management and strengthening on-the-ground conservation actions; and iii) institutional reforms to improve policymaking for nature conservation.

All further conservation planning and design requires the updating and verification of available data. Reporting to the European Forest Survey in 2011, the Republic of Moldova could only provide less than 40 per cent of the required data. As new forest inventories are not yet implemented and updated nationwide (only scientific reserves are covered), new approaches such as ecosystem-based adaptation are, consequently, scarcely included in forestry management. A sound inventory should, further, form the basis for the development of the Republic of Moldova's forest to a potential natural stage.

Recommendation 9.1:

The Agency "Moldsilva" should finalize without delay the updating of the national forest inventory as a basis for any forestry management decision to be taken.

The Republic of Moldova has set itself ambitious and worthwhile targets in regard to PA establishment and management; once these are implemented, nature conservation will significantly improve. A real net increase in the size of PAs on the ground, to achieve the ecological integrity of conservation, is the ambition.

Yet the construction of a robust and financially sustainable system, including skilled personnel as well as infrastructure sufficient for the necessary management and visitor services, is urgently needed. In this regard, institutional reform is seen as advisable, including institutional sharing of resources and budgetary reforms between the Ministry of Environment and parallel institutions as well as subordinated entities such as the Agency "Moldsilva".

The need for the establishment of competent authority on PA management, placed either within the Department of Natural Resources and Biodiversity of the Ministry of Environment or within the Agency "Moldsilva", is advised, to adequately reflect areas of national importance (national parks and biosphere reserves, the latter of which do not yet exist) within the institutional setting but also to appropriately respond to international requirements. Not the most effective for in situ conservation, the existing PAs (e.g. steppe and wetland habitats) still await upgrading to achieve conservation targets.

Recommendation 9.2:

The Ministry of Environment, in cooperation with the Agency "Moldsilva", should accelerate the preparation of the new law on protected areas in order to, in particular:

- (a) Harmonize national protected area categories with those of the International Union for the Conservation of Nature (IUCN);*
- (b) Harmonize the management structure of protected areas in line with national conservation priorities and international standards;*
- (c) Prioritize actions in regard to the extension of the protected areas network.*

Due to the fragmentation of habitats and intensive agricultural development of the Republic of Moldova, any spatial extension of conservation efforts on the ground needs to align with ongoing and future agricultural schemes and processes. Agro-environmental schemes have already been proposed for a long time, yet implementation still remains insufficient. With regard to the NEN, integrated spatial as well as landscape planning should become the core planning instrument, offering the chance for intersectoral cooperation and target-setting. In particular, wetlands, including riparian forest, offer good and much-needed chances for integrated restoration and utilization plans. Continuous degradation of hedges between agricultural fields hampers the migration of specific animal species.

Recommendation 9.3:

The Ministry of Agriculture and Food Industry, in consultation with the Ministry of Environment, should mainstream species conservation into agricultural practices and develop a habitat restoration programme, which would cover, inter alia, restoration of hedges.

Whereas many actions to foster biodiversity conservation have been initiated by governmental and non-governmental institutions, the upcoming ecosystem change and response due to climate change is not yet well reflected. Linking a landscape approach to biodiversity protection, reflecting different climate change scenarios, and ecosystem-based adaptation strategies into national policies, is the next step for the development of national

environmental policies. Particularly for wetlands, development of ecosystem-based adaptation concepts provides a cost-effective, integrated and consolidated approach for ecosystem services such as water retention, purification and filtration, and species conservation, linking fragmented migrating corridors, as well as sustainable land use. The Man and Biosphere concept according to the Sevilla Strategy provides the appropriate framework in this regard, as does the Florence Convention on Landscape. For an intensively agriculturally used country such as the Republic of Moldova, the integration of ecosystem values into regional development planning will succeed in achieving improved biodiversity conservation.

Recommendation 9.4:

The Ministry of Environment should:

- (a) Include ecosystem-based adaptation in its draft national climate change adaptation strategy;*
- (b) Finalize the preparation of the draft law on landscapes, based on the European Landscape Convention.*

Chapter 10: Agriculture and environment

The Republic of Moldova has adopted strategic documents aiming at achieving sustainable agriculture. Some of them were successfully implemented. However, this effort needs to be continued. Agricultural extension services and capacity-building activities, such as promotion of improved farming techniques and adaptation to climate change, lack sufficient funding.

Recommendation 10.1:

The Government should ensure:

- (a) Effective implementation of the strategies and programmes aiming at achieving sustainable agriculture, in particular soil conservation and rehabilitation, and control and abatement of pollutants from agriculture to surface waters and groundwater;*
- (b) Sufficient financing and support structures for agricultural extension services and capacity-building, including promotion of improved farming techniques and adaptation to climate change.*

Until the adoption of the 2008 Code on Offences, the Republican State Inspection for Plant Protection was active in the supervision and control over enforcement of the legislation on plant protection. Since then, no other entity has been authorized with these tasks and the supervision and control over enforcement of the legislation on plant protection has been discontinued.

Recommendation 10.2:

The Government should ensure that the National Agency for Food Safety enjoys full authority in the monitoring and enforcement of the legislation on plant protection.

The Republic of Moldova has made good progress in developing and adopting technical regulations and normative documents on soil protection, e.g. the 2008 Technical Regulation on Agricultural Soils Protection, and the 2008 Regulation on Content and Filling in of a Book of the History of a Field. However, neither regulation has ever been applied in practice. One of the main reasons is that no organization is empowered to implement and enforce the regulations.

Recommendation 10.3:

The Ministry of Agriculture and Food Industry should ensure that an institution is designated and adequate capacity is provided for it to implement and enforce the technical regulations on soil protection.

There is a lack of data concerning the situation on GMOs in the Republic of Moldova, including registered genetically modified plant varieties that are permitted for growing in the country. However, some soy products produced in the country contain GM soy components. As the country would like to increase its export of agricultural products to the EU market, consumers must be assured that these products are GMO free – or not.

Recommendation 10.4:

The Ministry of Environment should prepare a law on genetically modified organisms (GMOs), which will, in particular, ensure that:

- (a) Information concerning the situation on GMOs is regularly collected for use in decision-making;*
- (b) Agricultural products produced in the country are tested for GMO content and consumers are fully informed of the results.*

The Republic of Moldova lacks countrywide data on environmentally sound agricultural practices, such as crop rotation. Despite some studies having been conducted, there is no evidence that this agricultural practice is widely applied. New owners of agricultural lands tend to cultivate steep slopes and reduce crop rotation, thus indirectly contributing to soil erosion. Insufficient crop rotation was recognized as one of the main causes of land degradation in the Republic of Moldova. At the same time, experimental data showed the high role of crop rotation in yield formation and reconfirmed the influence of different crop rotations and fertilization on soil erosion and fertility.

Recommendation 10.5:

The Government should ensure that data on environmentally sound agricultural practices are collected and analyzed by the Ministry of Agriculture and Food Industry and the National Bureau of Statistics.

IMPLEMENTATION OF THE RECOMMENDATIONS IN THE SECOND REVIEW¹

Chapter 1: LEGAL AND POLICY-MAKING FRAMEWORK

Recommendation 1.1:

Following the 2005 EU-Moldova Action Plan, the Government should acknowledge environmental protection of natural resources as a national priority. For this purpose, it should strengthen the capacity of the environmental authorities and their bodies at national, territorial and local level, so that they are able to perform their functions and adequately respond to environmental priorities expressed in the policy papers. To facilitate the convergence to the EU environmental legislation, a new legal EU harmonization department should be established.

The recommendation was implemented. The Department for Water Management's divisions of European Integration and External Relations, and Management of Waste and Chemical Substances, were created in the Ministry of Environment. In addition, two agencies – "Apele Moldovei" and Fisheries Service – were subordinated to the Ministry.

Recommendation 1.2:

The Government should strengthen the Ministry of Ecology and Natural Resources to ensure that it fulfils main functions such as implementing international environmental commitments and collecting, managing and disseminating environmental information including the annual State of the Environment report and other reports.

The recommendation was implemented. New competences of the Ministry of Environment were set in the 2009 GD No. 847 approving the Regulation regarding the establishment and operation of the Ministry of Environment, its structure and central staff numbers. The Ministry's staff increased from 33 to 51. National focal points were appointed to coordinate the implementation of multilateral environmental agreements (MEAs), and seven units were established to carry out activities in the framework of selected MEAs. The units are autonomous and are not incorporated in the institutional structure, even if some of them were created by ministerial order.

Recommendation 1.3:

The Ministry of Ecology and Natural Resources should use new approaches in the development of environmental legislation, including convergence with key pieces and approaches to EU framework legislation, and identify ways of overcoming the gaps between strictly single-media oriented environmental laws. It should develop guidance documentation, best practice notes or other information on appropriate working methods.

The recommendation was implemented. The Government is continuing to prioritize reforms towards alignment with EU standards and values, e.g. the proposed new environmental strategy for 2013–2022, and draft laws on environmental protection, EIA and waste follow relevant EU directives.

See also Recommendation 2.1.

Recommendation 1.4:

The Government should ensure the effective functioning of the National Council of Sustainable Development and Poverty Reduction by including the Ministry of Ecology and Natural Resources as a member of this Council in order to improve integration of environmental considerations into other policy sectors, mainly agriculture, energy, industry, regional development and transport.

¹ The second review of the Republic of Moldova was carried out in 2005. During the third review, progress in the implementation of the recommendations in the second review was assessed by the EPR Team based on information provided by the country.

The recommendation was not implemented. Despite formally functioning until 2008, the National Council of Sustainable Development and Poverty Reduction failed to have any meaningful impact on the development programmes and to properly monitor the implementation of the country's strategies. Due to the extended political crisis, the Council has not been active since 2009.

While many national and sectoral development strategies have been developed, sustainable development principles and targets were reflected in them only partially in an integrated and consistent manner.

Chapter 2: COMPLIANCE AND ENFORCEMENT MECHANISMS

Recommendation 2.1:

The Ministry of Ecology and Natural Resources should in the short term:

- *Draft legislation and necessary by-laws to introduce an integrated permitting system for installations having significant impact on the environment, following the approach of the EU IPPC Directive as a benchmark;*
- *Ensure that self-monitoring requirements for enterprises are included in the permits; and*
- *Institute a simplified permitting scheme for other installations.*

The implementation of this recommendation is ongoing. A new law on environmental protection based on the principles of EU Directive 2010/75/EC (Industrial Emissions Directive) has been drafted that addresses this recommendation. However, the law is still not adopted. Self-monitoring requirements are still not included in the permits.

Recommendation 2.2:

Building on actual partial compliance with the EU Minimum Criteria for Environmental Inspection, the Ministry of Ecology and Natural Resources should:

- *Improve the operational and human resources management of the State Ecological Inspectorate, including staff training, and upgrade its technical capabilities;*
- *Streamline the instruments used to achieve compliance and enforcement. A first step would be to identify particular groups of the regulated community and their impact on ambient environment conditions. Further priorities should then be set among the most problematic geographic areas and the most polluting installations, and enforcement tools selected that will effect the most appropriate enforcement response; and*
- *Improve the existing set of indicators, which currently falls short of measuring both environmental improvements (e.g., pollution reduction amounts) and enforcement results (e.g., compliance rates and timeliness of compliance actions), so that the effectiveness of enforcement can be assessed more accurately.*

The recommendation has been partly implemented. During the period 2007–2010, 57 training events were organized, in which 493 environmental inspectors participated. The analytical laboratory of the State Ecological Inspectorate was strengthened from both a technical and methodological viewpoint. An accreditation system for analytical laboratories was established. For rapid response, there is a plan to acquire four mobile laboratories for regional inspectorates. Industries were ranked according to their impact on air quality (2010 Ministerial Order No. 110 of the Ministry of Environment). However, the part of the recommendation to assess the effectiveness of enforcement by improving indicators, which allow measuring both environmental improvements and enforcement results, has not been implemented.

Recommendation 2.3:

The Ministry of Ecology and Natural Resources should improve the use of the three existing environmental assessment instruments (SEE, EIA and PEE) by linking them closer to the principles to EU EIA Directive and to other compliance assurance mechanisms and increasing public involvement in environmental assessment decisions.

The term “strategic environmental impact assessment” (SEA) does not yet exist in the national legislation. However, the 1996 Law on Ecological Expertise and Environmental Impact Assessment (last amended in 2011) requires the assessment of the environmental impacts of programmes, plans, schemes, strategies and concepts, which is common international practice of SEA. The Law does not incorporate provisions on such procedures as deciding when and which plans or programmes require SEA.

Recommendation 2.4:

The Government should propose and submit for legislative approval important changes in the application of sanctions against environmental violators by:

- *Allowing administrative imposition of fines;*
- *Increasing the level of fines and indexing them to inflation;*
- *Making managers responsible for infringements; and*
- *Introducing environmental damage assessment based on actual remediation costs.*

The recommendation on increasing the level of administrative fines has been implemented in practice. The level of fines is periodically raised and the relevant legislation reviewed. The total amount of fines imposed has been raised 14 times during the period 2005–2012. The introduction of environmental damage assessment based on actual remediation costs still needs to be implemented.

Chapter 3: INFORMATION, PUBLIC PARTICIPATION AND EDUCATION

Recommendation 3.1:

The Ministry of Ecology and Natural Resources, jointly with the Ministry of Health and Social Protection and in cooperation with the Department of Standardization and Metrology, should review the national monitoring parameters and environmental quality standards:

- (a) To limit substantially the number of regulated parameters by making the remaining ones consistent with international standards and guidelines;*
 - (b) To introduce additional parameters and standards monitoring that are required by multilateral environmental agreements and EU environmental directives, and to set time schedules for phasing in those new parameters and standards that could not be introduced immediately; and*
 - (c) To focus on a core set of parameters and standards when planning the upgrading of monitoring stations, equipment and devices, and analytical laboratories including relevant staff retraining.*
- (See also recommendation 1.3)*

The recommendation has been partly implemented. There is progress in the gradual compliance with international, and especially EU, standards. This refers in particular to water quality standards, where the 2011 Law No. 272 on Water and implementing regulations, soon to be in place, are helping align the monitoring requirements and corresponding parameters to the EU legislation. For air, less progress is recorded but international projects implemented in recent years were focusing on the revision of the current air quality standards.

The number of parameters monitored has been reduced and, gradually, new parameters in line with EU and international requirements have been introduced. Modern equipment for monitoring and analysis was provided to some institutions to ensure that additional parameters can be monitored and reported. This situation is uneven across the environmental institutional spectrum, some institutions still facing big challenges in performing basic monitoring and reporting activities. As a result, the quality of the information collected remains questionable and not reliable.

Recommendation 3.2:

The Ministry of Ecology and Natural Resources, in cooperation with the Ministry of Health and Social Protection, the Ministry of Agriculture and Food Industry, the National Bureau of Statistics, the Agency for Forestry “Moldsilva”, the State Water Concern “Apele Moldovei”, the Agency for Geology “AGeoM” and other institutions concerned, should review the achievements and failures in the implementation of the 1998 Regulation on Establishing of an Integrated Environmental Monitoring System. On the basis of this review they should prepare a decree for Government adoption for the establishment of an institutional structure for interministerial coordination on environmental monitoring and information. The proposal should envisage, among other things:

- a) A leading role for the Ministry of Ecology and Natural Resources in this institutional structure together with operational support by a monitoring centre to be established by the Ministry on the basis of its existing observation and information units and additional resources, as appropriate; and*
- b) The preparation by this institutional structure, taking into account environmental monitoring and information provisions in various national strategies and programmes and international commitments, of a*

time-bound and consistent set of practical actions aimed at expanding observation networks and the number of parameters measured; improving data collection and exchange; harmonizing reporting with international requirements; and facilitating public access to environmental information.

The recommendation has not been implemented. An integrated monitoring system is not in place in the country. The draft environmental protection law envisages the establishment of such a system alongside the development of an environmental integrated information system. The draft law proposes to establish an agency for environmental protection (EPA), operating under the Ministry of Environment. The draft law was expected to be adopted in 2013; moreover, implementing regulations foreseen in its framework have to be elaborated if the draft law is adopted.

At present, most environment-related institutions have their own database of environmental information and there is no regulated sharing/exchange mechanisms between them. Only aggregated data are provided to the Ministry of Environment, upon request or at regular intervals in relation to various reporting obligations. A SEIS at the country level does not exist. The Ministry of Environment does not have an overview of all environmental data available in the country, their location and/or their quality. The draft environmental protection law contains provisions for the establishment of an integrated environmental information system at the country level coordinated by an EPA – also to be established (see Recommendation 2).

Recommendation 3.3:

The Ministry of Ecology and Natural Resources, in cooperation with the National Bureau of Statistics, the Agency for Forestry “Moldsilva”, the State Water Concern “Apele Moldovei”, the Agency for Geology “AGeoM”, should re-assess the effectiveness of their environmental reporting policies to ensure the publication and uploading onto the Internet of environmental information collected by these institutions, and to make them publicly accessible through Internet, free of charge on a regular basis and in a user-friendly form.

The implementation of this recommendation is ongoing. Access to environmental information has increased considerably over recent years. Most of the environment-related institutions have comprehensive websites and update them regularly. Relevant reports and other publications, legislation and information on projects are available for the public in the national language, free of charge.

A governmental decision of 2010 on e-government boosted considerably the use of modern technology in facilitating public access to environmental information, leading also to the establishment of the Open Data Portal of Moldova in 2011. Since then, the portal has grown continuously and new data sets are regularly added to it.

Recommendation 3.4:

To further improve the participation of public in environmental decision-making, the Ministry of Ecology and Natural Resources should initiate:

- *Implementing fully the 2000 governmental Regulation on Public Participation in the Elaboration and Adoption of Environmental Decisions;*
- *Supplementing the Law on Environmental Protection with including relevant detailed provisions on public participation in environmental permitting, environmental standards setting, and development of laws, regulations, strategies, plans and programmes affecting the environment, taking into account provisions of the applicable multilateral environmental agreements; and*
- *Including civil society representatives into governmental commissions or committees on environmental policy and sustainable development.*

The implementation of this recommendation is ongoing. The legal environment for civil society organizations (CSOs) in the country has considerably improved in recent years. The current legal framework provides for CSOs to freely establish and operate, as well as engage with the government and other stakeholders to achieve their goals. The 2008 Law No. 239 on Transparency of Decision Making determines the requirements to ensure transparency in decision-making by central government and local authorities, and other public authorities, and regulates the relations between the public authorities and stakeholders with the purpose of ensuring participation in decision-making. In December 2008, the parliament passed the Civil Society Development Strategy for 2008–2011. Establishment of the National Participation Council should be mentioned among recent

initiatives. The Council was established in February 2010 as an advisory and liaison body between the government, civil society and the private sector.

Recommendation 3.5:

The Ministry of Education, Youth and Sports, in cooperation with the Ministry of Ecology and Natural Resources and other stakeholders concerned, including NGOs and the mass media, should consider the establishment of a council on education for sustainable development. This body should help promote and facilitate the implementation, at the national level, of the UNECE Strategy for Education for Sustainable Development, paying particular attention to non-formal and informal education of adults (including education on citizen rights) and to the training of policy-makers and judges.

The recommendation has not been implemented. A council on ESD does not exist in the country. A working group was set up in 2006 to consider this recommendation and after one year of discussion the group's activities were discontinued. Currently, there is no indication of possible plans concerning the reopening of discussions between the Ministry of Environment and Ministry of Education for the development of a national strategy for sustainable development.

Chapter 4: INTERNATIONAL AGREEMENTS AND COMMITMENTS

Recommendation 4.1:

In order to improve implementation of the ratified international agreements, the Ministry of Ecology and Natural Resources should:

- *Establish clear mandates to the Working Groups for agreement implementation, coordinate their work and report about their results to the Government;*
- *Strengthen synergies between relevant Working Groups and avoid duplications of activities developed under the agreements; and*
- *Seek resources necessary to fulfill obligations under these agreements by all means including organizing donors' meetings.*

The recommendation has been implemented. The former Ministry of Ecology and Natural Resources issued orders to establish working groups for each of the multilateral environmental agreements (MEAs) to which the Republic of Moldova is a party. The composition of the working groups should be interministerial and reflect the areas of work of a given MEA. In fact, this is the case for only some of the MEAs. Working group members are representatives of the Ministry. One of the reasons for this could be that the order establishing the working groups is a document of the Ministry and is not mandatory for other authorities, and the availability of representatives of other authorities to participate often depends on personal circumstances. The order does not regulate when and how often the working groups should meet. This is decided on an ad hoc basis and varies in practice from MEA to MEA. Some working groups meet regularly to discuss and coordinate activities, whereas others only meet when the text of new legislation needs to be laid down and, in these cases, often the full membership does not meet.

When the focal point for a given MEA is not a representative of the Ministry of Ecology and Natural Resources (but, rather, one of its subordinated institutions), it often happens that the working group member representing the Ministry does not take part in the meetings. Thus, the Ministry's role of coordinating the actions of the working group with national policies is weakened. The non-participation of the Ministry representative is often due to lack of capacity in the Ministry, rather than non-willingness to participate.

Cooperation and coordination between the different working groups is left to personal initiative, since there is no framework within which to share information and experiences.

Recommendation 4.2:

The Ministry of Ecology and Natural Resources should analyze the results of implementation of environmental bilateral and multilateral agreements and other forms of bilateral and multilateral cooperation. Based on this analysis, it should identify the priorities for cooperation and concentrate its resources on them. It should integrate this analysis into its annual report on cooperation with international organizations to the Ministry of Foreign Affairs and European Integration.

The implementation of the recommendation is ongoing. A 2010 Government Decision establishes a coordinating mechanism for support emanating from international cooperation. The State Chancellery is in charge of coordinating activities with the international community. However, according to the Decision, several aspects and projects of international cooperation may not fall under this regime and would therefore be left without a coordinating mechanism.

At the beginning of 2013, the new structure within the State Chancellery, aiming at linking national priorities to international cooperation, was made operational. It is not yet possible to assess the effectiveness of the new structure.

Chapter 5: ECONOMIC INSTRUMENTS AND ENVIRONMENTAL FUNDS

Recommendation 5.1:

The Ministry of Finance in cooperation with the Ministry of Economy and Trade, and the Ministry of Ecology and Natural Resources, should assure the realization of the Republic of Moldova's Millennium Development Goals objectives pertaining to sustainable development. The environment should be made a priority area in both the Government's medium-term budget framework and related annual budgets to assure financing of the key environmental actions specified in the national Economic Growth and Poverty Reduction Strategy Paper.

The implementation of the recommendation is ongoing. Progress in achieving MDG7 has been uneven reflecting, notably, the lack of financial resources. Progress concerning the target of increasing the area covered by forests has been slow, and the target is likely to be missed. The target of increasing the share of protected areas was already achieved in 2007. Progress concerning the target of enhancing access to water and sanitation infrastructure has been slow. This holds, notably, for access to sanitation services in rural areas. The latter target will likely not be achieved. Another important area of concern is waste management.

Recommendation 5.2:

The Ministry of Finance and the Ministry of Ecology and Natural Resources should increase the "ad quantum" excise tax rates on petrol and diesel while differentiating them according to environmental characteristics with the objective to significantly increase the price of diesel versus petrol to reflect its environmental impact. At the same time, they should phase out the "ad valorem" excises on imported fuel.

The implementation of the recommendation is ongoing. There have been considerable increases in specific (i.e. *ad quantum*) excise rates, which have contributed to the upward trend in prices of motor fuels. The excise on imported fuel (a pollution tax) still exists, but the tax rate has not been changed.

Recommendation 5.3:

The Ministry of Ecology and Natural Resources and the Ministry of Finance should streamline the system of pollution charges, introducing a small number (less than ten) on measurable priority pollutants and eliminating all other charges. It should set the rates of the new charges at levels that will influence the polluters' behaviour significantly.

This recommendation has not been implemented. There have been no significant changes made to the system of pollution charges.

Chapter 6: EXPENDITURES FOR ENVIRONMENTAL PROTECTION

Recommendation 6.1:

The Ministry of Ecology and Natural Resources should identify the priority environmental issues among the already approved national strategies, programmes and action plans. These issues should be consistent with the relevant priorities of the 2004-2006 Economic Growth and Poverty Reduction Strategy Paper, the EECCA Environmental Partnership Strategy and the EU-Moldova Action. The Ministry should set clear measurable targets with related actions for their realization and provide justification of necessary financial resources. The Ministry, in cooperation with other relevant ministries and other governmental agencies, should identify sources of financing that may include the State budget, the National Environmental Fund and external funding by development partners.

This recommendation has been implemented. The main source of domestic environmental expenditures is the National Environmental Fund (NEF). Available resources have significantly increased since 2008 (due to a newly established product charge), but the overall size of resources is still small relative to the environmental problems in the country. The newly established National Fund for Regional Development also supports environment-related projects. Reliance on foreign assistance remains considerable.

Recommendation 6.2:

The Ministry of Ecology and Natural Resources should restructure the management of the National and Local Environmental Funds in line with the recommendations of the 2002 Performance Review of the funds. In particular:

- *The capacity of the secretariats of the funds should be expanded to assure proper assessment of the project proposals and evaluation of the quality of implemented projects. The expanded secretariats should be funded from the revenues of the funds.*
- *The Administrative Councils of the environmental funds should set guidelines for appraisal of project proposals, ranking in accordance with priority and expected environmental benefits. The Administrative Councils should ensure that the funds' available resources are utilized to the maximum possible extent, and that annual expenditures of the funds are equal or close to annual revenues; and*
- *The Ministry should consider introducing best practices of the Moldova Social Investment Fund into the management of the National and Local Environmental Funds and into the procedure of selecting projects for funding.*
- *The Administrative Councils of the environmental funds should increase the capacity of the National Environmental Fund to prepare project proposals for external funding, coordinate fundraising activities, and monitor project implementation.*

This recommendation has been implemented. The human resources of the National Environmental Fund (NEF) have been strengthened (by an additional five staff), but there are still concerns about the performance of the NEF as regards issues of procedures and managerial capacities, project cycle management, accountability and resource management.

Although the aggregate expenditures by the local environmental funds are much more limited than those of the NEF (on average, each of the 36 local funds spent some 111,000 lei (€7,325) per annum during 2010–2012), nonetheless, they do have sufficient capacity to ensure proper assessment of project proposals and evaluation of the quality of implemented projects.

Recommendation 6.3:

The National Bureau of Statistics, in cooperation with the Ministry of Ecology and Natural Resources and other relevant governmental agencies, should review the current system and methodology of defining and accounting for environmentally related expenditures in the context of best international practices. The improved accountability might serve as a basis for the Ministry to solicit the Government to increase the level of state environmental funding.

This recommendation has not been implemented. There is no new information on this issue.

Chapter 7: ENVIRONMENTAL MANAGEMENT IN AGRICULTURE AND FORESTRY

Recommendation 7.1:

The Ministry of Agriculture and Food Industry in cooperation with the Ministry of Ecology and Natural Resources should, as a priority, develop a programme for implementing Guidelines for Good Agricultural Practices that should be used as a key instrument to guide policy development and extension services in the agricultural sector. Advising farmers on how to counteract erosion efficiently and effectively should be one of the central components of this implementation programme.

This recommendation has not been implemented. A programme for implementing Guidelines for Good Agricultural Practices was not developed. However, the 2011 Soil Fertility Conservation and Improvement Programme for 2011–2020 contains measures to prevent soil degradation of 877,000 ha of arable lands by 2020 and envisages the training of farmers on how to counteract erosion and improve soil fertility.

Within the GEF project Pollution Control in Agriculture, 30 trainers have been trained on how to inform farmers on implementation of environmentally friendly technologies and efficient and effective measures to counteract erosion. The trainers conducted a number of seminars at the local level in which some 1,500 farmers participated.

Recommendation 7.2:

The Government should delegate the lead role to the Ministry of Ecology and Natural Resources for, in coordination with the Ministry of Agriculture and Food Industry, the Agency for Forestry “Moldsilva”, the State Water Concern “Apele Moldovei” and the Agency for Land Relations and Cadastre with the active involvement of farmers, NGOs, and municipal and district authorities, elaborating all ongoing and planned land management and afforestation programmes. These efforts should in particular focus on achieving the following important objectives:

- *Improvement of the management and protection of pasture;*
- *Establishment of water protection zones according to the existing laws and regulations; and*
- *Establishment of the National Ecological Network of Moldova.*

This recommendation has not been fully implemented. In 2010, in order to improve the management and protection of pastures, the Government adopted the Regulations on pasturage and haymaking.

The 2011 Law No. 272 on Water contains provisions on establishment and management of water protection zones. The 1995 Law No. 440-XIII on Water Protection Zones and Strips of Rivers and Reservoirs was amended accordingly in 2012.

The 2007 Law on the National Environmental Network lays down a good basis for establishment and development of a national environmental network as an intrinsic part of the Pan-European Ecological Network (Emerald Network). The 2007 Law was subsequently supported by the 2011 GD on Approval of the National Programme on the Environmental Network for 2011–2018. Only minor progress has been made in creating the network in practical terms.

Recommendation 7.3:

The Agency for Land Relations and Cadastre and the Agency for Forestry “Moldsilva” should develop a national Geographical Information System (GIS) in order to provide uniform presentation of topographic information and information on real estate (cadastre), which would facilitate all spatial planning purposes and related decision-making.

This recommendation has not been implemented. A national GIS with topographic information and information on real estate (cadastre) has not been developed. The GIS maps and cadastre data are available for protected areas only.

Recommendation 7.4:

The Ministry of Agriculture and Food Industry should ensure long-term financing under the aegis of scientific institutions with the objective to using the results of applied research and introducing environmentally friendly technologies and practices in agriculture.

This recommendation has not been fully implemented. A number of scientific institutions subordinated to the Ministry of Agriculture and Food Industry are functioning in the Republic of Moldova, such as the Institute for Pedology and Agrochemistry named after Nicolae Dimo, the Republican Centre of Applied Pedology, and the Institute of Horticulture and Food Technology. Although they produce good quality results from applied research, these results are not widely applied in practice.

Recommendation 7.5:

The Government should make a proposal to amend the Forest Code in order to give to the Ministry of Ecology and Natural Resources the authority to approve the forestry management plans, transferring to it the structure responsible for developing them. It should improve the supervision of forest exploitation and should be authorized to impose higher fines. Capacity building and its staffing should be adjusted adequately.

See also Recommendation 1.1.

This recommendation has not been fully implemented. The Agency “Moldsilva” and the State Environmental Inspectorate accordingly developed a proposal to amend the Forest Code, which is expected to be adopted by the parliament in 2014.

Chapter 8: ENVIRONMENTAL MANAGEMENT IN INDUSTRIAL ACTIVITIES

Recommendation 8.1:

The Ministry of Ecology and Natural Resources in cooperation with the Ministry of Industry and Infrastructure and other relevant stakeholders should develop an integrated system of indicators for monitoring the environmental impact of industries. This system should enable the establishment of targets that would be used for setting priorities for environmental impact mitigation in industrial development strategies.

This recommendation has not been fully implemented. Indicators for monitoring the impact of industry on the environment were developed based on the indicators recommended by the ECE Working Group on Monitoring and Assessment. The implementation is proceeding smoothly.

Recommendation 8.2:

The Ministry of Economy and Trade should coordinate relevant institutions more effectively, monitor the implementation of sectoral programmes, and ensure that environmental issues are integrated effectively into these programmes.

This recommendation has not been fully implemented. In 2010, the e-governance programme was launched to monitor the implementation of sectoral programmes. Environmental concerns are integrated during the interministerial procedure before the adoption of sectoral strategies, programmes and action plans.

Recommendation 8.3:

The Ministry of Industry and Infrastructure should initiate the restructuring of the National Energy Conservation Agency and the National Fund for Energy Conservation based on the experience of other countries on energy savings and energy efficiency improvements.

This recommendation has not been fully implemented. The 2010 Law No. 142 on Energy Efficiency was adopted to support the development of the energy sector and energy efficiency. In order to ensure the growth of energy efficiency and fuel, and the use of the most efficient energy and manufacturing technologies that reduce energy intensity and prevent environmental impact, the National Energy Efficiency Programme for the period 2011–2020 was adopted in 2011 (GD No. 833). The 2012 GD No. 401 approved the Regulations on the organization and functioning of the Energy Efficiency Fund. So far, there is no implementation report on the Programme.

Recommendation 8.4:

The Ministry of Economy and Trade in collaboration with the Ministry of Finance and the Ministry of Ecology and Natural Resources should improve economic incentives (for instance, reduction of profit taxes and other taxes for industrial production based on waste recycling and reuse, reduced charge rate for enterprises reducing their waste, etc.), elaborate measures for promoting recycling and disposal of waste; stimulate energy efficiency improvements; and enhance clean production methods based on related national programmes.

This recommendation has not been fully implemented. A draft waste act and national waste management strategy were prepared in line with EU priorities. However, the draft waste act’s adoption is delayed. Current waste legislation dates from prior to 2005.