

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

ENVIRONMENTAL PERFORMANCE REVIEWS

AZERBAIJAN

Second Review Synopsis



UNITED NATIONS
New York and Geneva, 2011

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The United Nations issued the first Environmental Performance Review of Azerbaijan (Environmental Performance Reviews Series No. 19) in 2004.

This volume is issued in English and Russian only.

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Preface

The second Environmental Performance Review (EPR) of Azerbaijan began in November 2009 with a preparatory mission. During this mission, the final structure of the report was discussed and established. A review mission took place from 11 to 22 April 2010. The team of international experts taking part included experts from the Czech Republic, Kazakhstan, Portugal, the Slovak Republic, and Switzerland as well as from the secretariats of the United Nations Environment Programme (UNEP) and the United Nations Economic Commission for Europe (UNECE).

The draft EPR report was submitted to Azerbaijan for comment and to the Expert Group on Environmental Performance for consideration in September 2010. During its meeting on 28 October 2010, the Expert Group discussed the report in detail with expert representatives of the Government of Azerbaijan, focusing in particular on the conclusions and recommendations made by the international experts. The Expert Group decided to address those recommendations of the first EPR of Azerbaijan that were still valid in two different ways. If a chapter from the first EPR was also covered in the second EPR, then valid recommendations and their conclusions from the former would be reflected at the end of the respective chapter in the latter. If a first EPR chapter however was not covered in the second EPR, valid recommendations would be mentioned in Annex I-A “Valid Recommendations from the first Environmental Performance Review not covered in preceding chapters”. The remaining first EPR recommendations that had been implemented partially or fully would be covered in Annex I-B “Implementation of the recommendations of the first Environmental Performance Review”.

The EPR recommendations, with suggested amendments from the Expert Group, were then submitted for peer review to the Committee on Environmental Policy on 2 November 2010. A high-level delegation from Azerbaijan participated in the peer review. The Committee adopted the recommendations as set out in this report.

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

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

Executive summary

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

Azerbaijan is one of the oldest oil-producing countries in the world. Oil production peaked at some 500,000 barrels per day (bbl/day) during the Second World War but fell significantly after the 1950s. Between 1997 and 2008, Azerbaijan's oil production increased almost fivefold. In 2008, the country was producing 875,000 bbl/day, some 85 per cent of which was exported. It was expected that peak oil capacity in 2009 would be pushed over the 1 million bbl/day mark.

With its strategically important pipeline infrastructure, Azerbaijan is becoming an increasingly important transit corridor for oil and gas. Pipelines play a crucial role in the economic development of the country, which offers three important transit pipeline routes through its territory.

Since 1991, Azerbaijan's economy suffered from serious problems, but it recovered considerably by 2009. Gross domestic product (GDP) dropped by 63 per cent between 1989 and 1995. Economic recovery was very slow, and GDP only returned to its pre-1989 level in 2005. However, since 2005, GDP growth has been extremely strong and by 2009 had doubled its 1995 level.

Since the 1990s, output expansion has been largely driven by the foreign direct investment (FDI) in the oil and gas sector that has resulted in a two-track economy: a fast-growing international hydrocarbon sector in contrast with a non-oil-related, inefficient internal economy sector. In 2007, the oil and gas sector represented 70 per cent of industrial output and the hydrocarbon sector brought in over 90 per cent of export revenue. Industrial production contributes over 60 per cent of GDP (2008), double the 1995 figure.

Rapid industrialization has led to a decline in the importance of the agricultural sector, which now produces only 6 per cent of GDP, compared with 30 per cent in 1991, and which has now fallen below the construction sector (8 per cent of GDP). However, in 2007 the private sector produced some 81 per cent of GDP as a result of consistent privatization policy started in 1993.

Policymaking framework for environmental protection and sustainable development

Environmental authorities have been considerably strengthened since the first EPR, both institutionally and in terms of funding. Since its establishment in 2001, the Ministry of Ecology and Natural Resources (MENR) has succeeded in promoting sectoral integration by developing environmental programmes and action plans, and by contributing to the development of programmes on sustainable development in cooperation with other ministries and State agencies. However, strengthening institutional coordination and cooperation among ministries, linked to the environment, remains a key challenge.

Core policy documents relating to the environment were either about to expire or had expired, without a clear plan or timetable that would ensure their continuity. Specifically, there was no evidence that the 2003–2010 State Programme on Environmentally Sustainable Socio-Economic Development was about to be extended or updated. The draft Additional Action Plan cannot replace a coherent policy programme. Long-term improvements in environmental management and protection require sound development of a policy framework that can establish continuity and predictability in national environmental policy.

Significant progress has been made in developing a national legislative framework. There is, however, considerable room for improvement, especially with regard to secondary legislation, which is at times non-existent or not readily accessible and available.

Integrating environmental concerns into economic and social sectors remains a key objective for guaranteeing sustainable development, public health and social well-being, which by its nature requires inter-sectoral and inter-ministerial cooperation. The existing ministerial coordination cannot adequately ensure that environmental and sustainable development considerations receive the required priority.

Compliance and enforcement mechanisms

Since 2003, the provisions of the environmental legislation on monitoring of compliance have not changed significantly. However, current legislation provides only detailed regulations for State monitoring of compliance and enforcement by the competent authorities. The provisions of the Law on Environmental Protection on self-monitoring by industrial operators and public enforcement are very short and are not developed in the secondary legislation.

The environmental enforcement system relies almost solely on a set of administrative sanctions limited to monetary administrative penalties. The need to review the system of administrative sanctions for non-compliance is illustrated by the high number of appeals against decisions and by the imbalance between fines and compensation in the period 2008 to 2009. The aim of such a review would be to make the system more consistent, proportionate and effective.

As highlighted by the first EPR, there is still no unified environmental enforcement strategy. Some short-term priorities in this area are set via ad hoc decisions by the President and Cabinet of Ministers, followed by certain interventions by environmental enforcement authorities and, in some cases, by urgent investments out of the President's Reserve Fund. Such an approach precludes the design of a more effective environmental enforcement system with a set of key measures. Moreover, it hinders the formulation of a strategic view towards the planning and management of the activity of MENR inspectors, including the evaluation of resource requirements for staffing and infrastructure and capacity-building needs.

The legislative frameworks for State ecological expertise and environmental impact assessment (EIA) have not changed in comparison with 2002. National legislation lacks specific provisions on EIAs, as well as clear criteria for determining whether or not a project is subject to State ecological expertise and an EIA. Moreover, decision-making processes concerning such expertise and EIAs are extremely centralized, while the administration dealing with those issues is understaffed. All these factors impede promotion of EIAs in the country. Strategic environmental assessments (SEAs) are also sometimes carried out, but national legislation does not contain any specific regulations in this context.

A significant share of the basic information derived from monitoring, inspections and enforcement is not available to the public. Moreover, the statistical reports submitted by MENR to the State Statistical Committee do not cover data on inspections and enforcement of the legislative requirements relating to conservation of biodiversity and specially protected natural areas.

Monitoring, information, public participation and education

Azerbaijan has generally preserved its monitoring networks and made some progress in developing them further. However, no change in the number of measured air and water parameters has taken place since 2003. Hydrobiological observations for surface water and groundwater are not implemented. Sampling and analytical methods follow requirements set out in the 1989 and 1995 guidebooks, which have never been reviewed. There is a need to strengthen environmental monitoring to make it an effective information and policy tool.

There are no institutional structures or formal arrangements to coordinate monitoring and environmental data-collection activities conducted by various institutions. Intercalibration exercises between analytical laboratories of various monitoring institutions are sporadic or non-existent. Furthermore, enterprise environmental monitoring remains practically non-existent in the country.

Public institutions responsible for environmental monitoring and data collection maintain their own databases, which are not interconnected with each other. Although MENR regularly receives environmental statistical data from other monitoring institutions and enterprises, there is no user-friendly operational database to link various data flows to facilitate study of cause-effect relationships and to develop environmental assessments.

Azerbaijan does not publish state-of-the-environment reports, contrary to the country's obligations under the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. MENR has not established a legal and institutional framework for producing regular environmental assessment reports.

However, Azerbaijan is making efforts to ensure that environmental information is accessible to the public. Thus, MENR and the Ministry of Health regularly update their websites, produce information leaflets and posters for the public and issue press releases. At the same time, the Ministries of Economic Development, of Industry and Energy, of Agriculture and of Transport do not actively communicate environment-related data and information to the public. National reports to the governing bodies of MEAs are not uploaded on national websites and are thus not available to the public.

Azerbaijan has made some progress in involving the public in environmental decision-making. The public was widely consulted in preparing some governmental programmes such as the State Programme for Poverty Eradication, and is also invited to participate in working groups preparing draft laws. In addition, representatives of research institutions and non-governmental organizations participate in State ecological expertise expert commissions and public hearings are conducted on large projects subject to the EIA procedure. However, no clear procedures have been developed for holding public hearings on environmental matters.

Environmental education and training have improved but much remains to be done. Environmental issues have been introduced into preschool and school curricula, and a number of relevant subjects have been included in higher education courses. An educational standard for the subject of ecology has been approved. Training and retraining courses are organized on a regular basis for civil servants. However, existing curricula and teaching aids do not comply with the current requirements.

No national strategy on education for sustainable development has been adopted so far. No inter-agency commission or expert group involving all stakeholders has been established to develop and promote the subsequent implementation of a national strategy.

Implementation of international agreements and commitments

Azerbaijan has made significant progress on international environmental cooperation since 2003. Azerbaijan has acceded to or ratified 14 major MEAs and the number of international environmental conventions and protocols, as well as bilateral agreements, ratified by Azerbaijan is growing steadily.

Substantial progress has been made in implementing international commitments under some MEAs, but for other agreements measures taken are mostly on an ad hoc basis and often lack strategic planning. Further improvement is needed for reliable communication with MEA secretariats and in compliance with reporting obligations.

Azerbaijan is a party to a relatively high and still growing number of Conventions in the area of biodiversity conservation. National authorities have to place special attention on coordinating activities for the implementation of these agreements and on effective use of synergies in their work.

Azerbaijan participates in the Clean Development Mechanism (CDM) as a non-Annex 1 party to the Kyoto Protocol. The country can take advantage of the benefits of the flexible mechanisms under the Kyoto

Protocol. As the country's CO₂ efficiency is still low, cost-effective reduction of greenhouse gas emissions is possible through CDM. Simplified modalities and procedures for small-scale CDM project activities would reduce the administrative burden.

In its efforts to implement international commitments regarding climate change, the Government has adopted a number of programmes, which include activities to identify suitable renewable energy sources, measures on climate change mitigation and actions for improved climate monitoring; but so far neither a comprehensive mitigation nor an adaptation strategy has been worked out.

Land degradation continues to be a major environmental problem that has worsened in recent years. Conflicts of interest and coordination problems between MENR and the Ministry of Agriculture impede the successful implementation of the necessary measures to stop land degradation and its negative impact on long-term food security.

Azerbaijan has not yet fulfilled an important obligation on setting targets on the quality of drinking water and related issues to comply with the provisions of the Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes. National and local targets will help Azerbaijan to achieve the goal of providing drinking water and sanitation for all, as set by the above-mentioned Protocol and the targets of Millennium Development Goal 7.

Economic instruments and environmental expenditures for environmental protection

Progress has taken place in the use of economic instruments for environmental protection in the period since the first EPR. Tariffs in the energy sector have become more cost reflective and collection rates have created better conditions for efficiency and improved incentives for better environmental management. In the utilities sector, there has been progress overall in charging users for the effective use of resources, including through progress in metrification and tariff changes. However, collection rates in utilities are still unsatisfactory and there is no independent tariff-setting process.

The system of pollution charges remains unreformed and largely ineffective as a policy instrument. The shortcomings regarding lack of focus and limited influence in changing the behaviour of polluters, pointed out during the first EPR, remain valid. As rates have not been updated, the dissuasive value of the charges has been further eroded by inflation. Nevertheless, some progress has been noted with regard to payment compliance.

Environmental spending has increased significantly in recent years, with expansion driven by investment. In 2008, the amount of environmental expenditures was US\$ 213.73 million, almost 10 times the level reached in 2003. As a result of the strong investment effort undertaken in 2007–2008, environmental investment accounted for some 55 per cent of environmental spending in that period.

Public spending has played a major role in the overall growth of environmental spending. The development of the hydrocarbon sector and the massive investment effort led to the rapid economic growth and the strengthening of public finance, thus creating new opportunities for financing public projects, including in the environmental domain. However, there is insufficient clarity on concrete commitments over the medium term.

Air management and permit issuing

Until 2009, air quality was not a priority of environmental policy in Azerbaijan. However, several measures were recently implemented or planned to reduce emissions of pollutants into the air. Highly polluting industrial installations in Baku will be closed down and replaced by newly built ones located in sparsely populated sites.

Between 2003 and 2009, a declining trend for emissions from stationary sources was observed, whereas emissions from mobile sources increased by almost 64 per cent, which can be explained by the development of the vehicle fleet. In 2008, the emissions from mobile sources were twice as high as those from stationary sources. At an aggregate level, however, because of these opposing trends, there is no significant tendency over time in total emissions, although significant year-by-year fluctuations occur.

The air quality monitoring network in the country is obsolete and under-developed, with a limited number of stations, no automated stations and no measurements of particulate matter (PM10 and PM2.5) or ground-level ozone. No advanced treatment of monitoring data (modelling) is in place. However, the monitoring network will be substantially upgraded in 2010–2012.

The current national legal framework on air protection is obsolete and does not reflect the most recent internationally recognized developments in air quality assessment and management. No separate strategic or policy document on air quality management has been developed.

Air quality standards are based on the modification of the former Soviet system. These standards are laid down for 88 pollutants; standards for PM10 or PM2.5 are not available. Technology-based emission limit values or generally binding quantified requirements to reduce emissions are not applied.

The air quality assessment and management system is not coordinated with the measures to mitigate climate change. This lack of coordination prevents the exploitation of potential synergies. Applying an integrated approach, focused on preferential support to non-combustion renewable sources of energy (hydro, solar and wind), as well as to energy-efficiency measures and energy savings, would reduce both air pollution and greenhouse gas emissions.

Since 2000, the system of environmental permit issuing has been fully based on Soviet practice and does not reflect recent developments. Best available techniques (BATs) have not been defined and are therefore not taken into consideration during the permit issuing procedure. Existing legal provisions do not create a sufficient basis for permit issuing, especially the absence of technology-based emission limit values, but also the lack of guidance on BATs. The role of EIA in the permit issuing process is not fully defined and depends on decisions by the competent authority.

Water management and protection of the Caspian Sea

Water resources are characterized by their uneven spatial and seasonal distribution resulting in salinity of groundwater, exacerbated by inadequate drainage of irrigated lands. Inadequate water supply and irrigation networks cause high water losses, around 30 per cent of the total water abstracted. Some 70 per cent of available surface water resources are heavily polluted owing to the lack of wastewater treatment plants. About 80 per cent of the water used for drinking and irrigation purposes comes from the contaminated Kura and Araz rivers, which is a major problem that can only be solved in cooperation with neighbouring countries.

Since 2004, there has been progress in securing water availability, irrigation, water and sanitation cycle, and flood protection infrastructures, owing to significant investments both from the multilateral and bilateral institutions and from the State Oil Fund. The State budget for the running costs of the institutions involved in water resources management has also increased. As a result, the population in rural areas using improved drinking water sources increased by 10 per cent.

Some progress has occurred in sewerage and wastewater sectors. Biological wastewater treatment is increasing nationwide and the Caspian Sea monitoring data show a decrease in the concentration of pollutants. Some improvements have been achieved with the creation of the Azersu State Joint Stock Company, as the national provider of water and wastewater treatment services, and with the establishment of water-user associations in irrigation.

However, the very low water tariffs do not allow cost recovery or the promotion of efficient use of water. Water reuse is not promoted and the installation of water meters is proceeding at a very slow pace. Irrigation tariffs are currently charged per amount of water use instead of area, which is a positive first step.

Lack of specific water policy and water strategy documents is one of the major problems of water governance in Azerbaijan. National programmes and action plans contain components addressing water issues and together form the water policy. Given the number of actors involved in water issues and the limited communication among them, the lack of water-related structural documents is an important obstacle to effective water governance.

The legal framework for water in Azerbaijan has not kept up with the existing institutional infrastructure which is being developed. The majority of water-related laws in Azerbaijan have not changed since 2003, and almost no amendments have been introduced. It is commonly accepted that new systems are not being designed to comply with the existing norms, and there is a need to ensure that they comply with internationally accepted norms as well.

The main Caspian Sea issues include water pollution from the oil and gas industry, water pollution from households and from the Kura River delta, sea level oscillation and threats to the Sea's bioresources. In 2006, the Government started to implement more intense protection and rehabilitation measures such as using new technologies and cleaning devices and procedures for oil and gas exploration; cleaning up of oil-contaminated areas of the Absheron peninsula, and actions aimed at increasing and protecting Caspian Sea bioresources. However, further investments are necessary for cleaning polluted flows entering Azerbaijan (the Kura and Aras rivers), a problem which requires international joint action with neighbouring countries.

Waste management

The legislative framework for waste management has been significantly improved by the implementation of several new legislative norms. Actions needed to improve the waste management situation were included in the Comprehensive Action Plan for Improving the Environmental Situation for 2006–2010, which has led to a big reduction in the amount of accumulated waste.

The system of municipal solid waste management is receiving much more attention than previously. Waste collection, transportation and disposal works well in Baku City. Disposal practices have been significantly improved by upgrading operations and by concentrating waste at a single disposal site, which receives some 80 per cent of municipal solid waste collected on the Absheron peninsula. In general, however, existing landfills do not meet international sanitary standards. Waste separation is starting to be introduced. Rural areas are only partly covered by municipal waste services.

Significant improvement has been achieved in the area of industrial waste management. Outdated technologies are continuously being replaced with modern ones, reducing industrial waste generation. Oil and gas industries have upgraded their waste management practices, also with the encouragement of foreign investors.

However, waste-related data are of low quality and non-compliant with the recently approved waste classification. The most information on hazardous waste is collected on the Absheron peninsula, but the information from other regions is incomplete. Additionally, current waste statistics and other waste-related information do not include waste generated by activities in the country carried out by foreign investors.

Management of pesticide waste has significantly improved with the establishment of the Phytosanitary Control Service in 2006, which created conditions for taking concrete steps to solve this problem. Facilities for the storage of obsolete pesticides and for radioactive waste have been rehabilitated, and the measures implemented have significantly reduced environmental risks.

Medical waste remains a problem. There has been some improvement in the management of medical waste in the private health sector. No changes have been identified in the practices of the State-owned health sector. However, new legislation has been adopted and a strategy for health-care management has been drafted and is supported by all the ministries involved in this area.

Biodiversity, forestry and protected areas

Azerbaijan, as a party to a number of biodiversity-related conventions, has made increased efforts since 2003 to comply with their obligations and in this way to improve nature management in a country where the exploitation of natural resources had caused significant loss of biodiversity. There remain, however, some issues to be addressed, particularly in the areas of biodiversity monitoring; policy development and goal-setting; biodiversity and forestry legislation; and, assessment and evaluation of implementation.

Considerable investments have been made to create protected areas with the major objectives being to protect rare, endangered and endemic species, as well as the development of tourism in the national parks. Yet, no management plans have been developed, apart from Hirkan National Park, which has had a management plan approved, and Shah Dagh National Park, which has a management plan in the pipeline.

However, biodiversity continues to be under threat as a result of harmful economic activities that do not take into account the need to conserve and sustainably use biodiversity and to maintain ecosystem services. Unsustainable agricultural practices, such as overgrazing by privately owned sheep and cattle, has caused serious degradation and erosion of the land and led to increased biodiversity losses in the country.

There is low forest cover in the country and a lack of commercial wood production. Since 2003, the Government has carried out some forest restoration and protection activities, but there is no up-to-date publicly available data on forest resources.

MENR does not participate fully in international and pan-European processes, such as the Convention on Biological Diversity, the Pan European Biological and Landscape Diversity Strategy (PEBLDS), ForestEurope (previously MCPFE) and the UNECE/Food and Agriculture Organization of the United Nations European Forestry Commission. Although it has submitted some reports, it is essential for the Ministry to follow some of the key biodiversity and forestry discussions and negotiations in order to participate in the decision-making and priority-setting meetings.

A Red Data Book was published in 1989 but the revised edition is still pending. There is a lack of available information on the status of vulnerable, endangered and critically endangered species of flora and fauna; a lack of joint implementation of activities with other sectors in efforts to support biodiversity conservation; and a lack of public awareness about this issue.

No policy framework has been formulated since the conclusion of the 2006–2009 National Biodiversity Strategy and Action Plan (NBSAP). Moreover, no external, publicly available report of implementation or assessment of implementation of the NBSAP is available.

Conclusions and recommendations

Chapter 1. Policymaking framework for environmental protection and sustainable development

Environmental authorities in Azerbaijan have been considerably strengthened since the first EPR, both institutionally and in terms of funding, a trend that has been particularly evident during 2010, designated as the Year of the Environment by the President of Azerbaijan. This is a welcome development, especially when seen in perspective with regard to other countries in the region. Yet, although the number of projects managed by MENR has increased greatly since the first EPR, long-term improvements in environmental management and protection require sound development of a policy framework that can establish continuity and predictability of national environmental policy for both domestic and international audiences.

At the time of the EPR review, core policy documents relating to the environment were either about to expire or had expired, without a clear plan or timetable that would ensure their continuity. Specifically, there is no evidence that the 2003–2010 State Programme on Environmentally Sustainable Socioeconomic Development, which enshrines the country's environmental policy, was about to be extended or updated. The draft Additional Action Plan that was prepared by MENR and considered by the Cabinet of Ministers cannot replace a coherent policy programme. Thus, the situation as regards environmental policy appears to resemble that of sustainable development, where a discontinuity existed between 2005, when the first State Programme on Poverty Reduction and Economic Development expired, and 2008, when the new State programme was adopted. The possibility of policy discontinuities and unpredictability in a core public policy area, such as that of environmental policy, is clearly not facilitating more effective long-term environmental management or protection.

Recommendation 1.1:

The Ministry of Ecology and Natural Resources should:

- (a) *Develop a national environmental policy that would succeed the one that is about to expire, with clear multiyear priorities and adequate consideration of funding and capacity needs, in order to ensure policy continuity and predictability.*
- (b) *Submit it to the Cabinet of Ministers for consideration and approval.*

The list of policy documents related to the environment that are about to expire in 2010 without clear plans for renewal, updating or extension includes the State Strategy on Hazardous Waste Management for the period 2004–2010, the Hydrometeorology Development Programme for the period 2004–2010, and the State Programme on Summer/Winter Pastures, Effective Use of Meadows and Desertification Prevention for the period 2004–2010. Furthermore, the list of expired policy documents includes the National Strategy and Action Plan on Biodiversity Conservation and Sustainable Use for the period 2006–2009 and the National Programme on Reforestation and Afforestation for the period 2003–2008. Whereas determining the usefulness of extending a specialized policy programme requires a policy decision by the Government and MENR, the country's needs in terms of forests and reforestation are still not adequately covered, even if the situation has improved compared to the first EPR. As regards biodiversity conservation, Azerbaijan still faces formidable environmental challenges, which require policy responses that could considerably be facilitated by a policy document in these areas.

Recommendation 1.2:

The Ministry of Ecology and Natural Resources should assess the necessity of renewing, updating or extending existing policies. To better ensure policy continuity, the assessment of policy needs should be anticipatory, i.e. it should precede the completion of existing programmes and action plans, in order to give adequate time for analysis and preparation of successor policy documents.

Significant progress has been made in developing a national legislative framework since the first EPR. Although there have been improvements in terms of implementation thanks to better and more detailed

secondary legislation, more can be done in certain areas. One such substantive area is that of State environmental expertise, where the framework Law on Environmental Protection is still rather general. Due to the nature of environmental issues in the country which are similar to those of industrialized nations in the West, the country can benefit by reviewing and adapting best practices from other industrialized nations.

The Ministry of Ecology and Natural Resources appears to realize the importance of developing adequately the legal framework for key environmental protection functions, as indicated by the fact that both the Comprehensive Action Plan for 2006–2010 and its successor, the Draft Additional Action Plan for 2011–2014, have devoted an entire section to improving the country's legislation. Yet implementation of the Comprehensive Action Plan in this area has not been complete.

Recommendation 1.3:

The Ministry of Ecology and Natural Resources should improve the system of secondary legislation and its implementation and ensure the full implementation of legislative improvements foreseen in the multi-year programmes that cover environmental protection and sustainable development, and their action plans.

Promoting environmental consideration to other areas of economic and social activities remains a much needed objective for guaranteeing not only sustainable development but also public health and social well-being. However, effective intersectoral cooperation, in particular interministerial cooperation, is a prerequisite for achieving this goal. Unfortunately, there is still no State Commission on Sustainable Development that would be entrusted with strategic planning and high-level coordination of sustainable development efforts. While coordination through the Cabinet of Ministers is useful, especially through inputs in the formulation of policy and through exchanges and compilation of reports on implementation, it cannot adequately ensure that environmental and sustainable development considerations receive the required priority. Moreover, a country strategy on sustainable development has never been developed. There is no evidence that Azerbaijan is planning to develop such an instrument.

Recommendation 1.4:

The Cabinet of Ministers should:

- (a) Consider the establishment of a high-level State Commission on Sustainable Development.*
- (b) Appoint the members of this Commission in terms of their institutional affiliation, and not their personal capacity, to better ensure its smooth functioning in cases of reorganizations or changes of incumbency in existing ministries.*
- (c) Appoint the Ministry of Ecology and Natural Resources as the Secretariat of this Commission.*
- (d) Develop a country strategy on sustainable development and consider charging the State Commission on Sustainable Development with this task.*

The MENR lost overview of environmental issues in the regions due to two separate reductions of the regional environmental departments as a result of budget constraints. The regional environmental departments carry out similar functions as MENR, but in their own locality. Moreover, since 2002, the number of environmental inspectors has fallen, due to the liquidation of the State Control Inspectorate and the decline in the number of inspectors in the regional divisions of ecology and natural resources. It is therefore not surprising that the number of inspections went down after 2002.

Recommendation 1.5:

The Ministry of Ecology and Natural Resources should

- (a) Increase the number of regional departments in order to strengthen the work at the regional level.*
- (b) Re-establish the State Control Inspectorate with adequate structures at the regional level in order to strengthen the work on compliance and enforcement.*

* * * * *

Those following parts of recommendations from the first EPR of Azerbaijan that are still valid, and their preceding conclusions are listed below.

While policy planning and legislation are important, overall success can only be measured through implementation. The current system of State ecological expertise is described in the 1999 Law on Environmental Protection, and it applies to a very broad range of products and services, activities and policies. In this respect, it combines both environmental impact assessment and strategic environmental assessment in a single package, with no clear differentiation between them. It is important to update the system and make it consistent with standard international practice.

EPR I-Recommendation 1.3:

The Ministry of Ecology and Natural Resources should undertake the following:

- (a) Redesign the system of Ecological Expertise with environmental impact assessment legislation based on international experience and practices, with clear guidelines regarding screening and scoping procedures; initial steps towards decentralized decision-making in this area should be planned for the mid-term;*
- (b) Develop separate legislation for Strategic Environmental Assessment (SEA), which applies to a higher stage of national planning and requires a higher degree of coordination.*

Chapter 2. Compliance and enforcement mechanisms

Despite the fact that some projects have undergone the EIA procedure in Azerbaijan, there are no specific provisions on environmental impact assessments in national legislation. What is more, the criteria for determining whether or not a project is subject to SEE and an EIA by the State Expertise Administration of the Ministry of Ecology and Natural Resources remain very obscure. Moreover, the decision-making processes concerning SEEs and EIAs are extremely centralized in the country, while the sector dealing with those issues and based in Baku is understaffed. All these factors impede promotion of EIAs in the country. SEAs are also used sometimes in Azerbaijan, but national legislation does not contain any specific regulations in this context.

The first Environmental Performance Review of Azerbaijan already made a recommendation to the Ministry of Ecology and Natural Resources to modernize the system of ecological expertise and EIA-related legislation in accordance with international experience and practices. It put special emphasis on the needs to provide clear guidelines with regard to screening and scoping and to take the initial steps towards more decentralized decision-making in this area. In addition, it required Azerbaijan to develop national legislation on SEAs. The above recommendations have become even more important and timely in view of the current level and pace of economic development in Azerbaijan, as the number of public and private projects subject to EIAs is growing and decisions on many important aspects of these projects related to the environment are being made on the level of strategic documents.

Recommendation 2.1:

- (a) The MENR should ensure that provisions on EIA and SEA are based on international acknowledged practices and are adequately developed and reflected in the draft Law on Ecological Expertise,*
- (b) The Cabinet of Ministers should accelerate the procedure of approval of the draft Law on Ecological Expertise and submit it to the Parliament for further consideration.*

See below EPR-I Recommendation 1.3

To date, there is still no unified environmental enforcement strategy in Azerbaijan. As discussed above, some short-term priorities in this area are identified by certain ad hoc decisions by the President and Cabinet of Ministers, e.g. on water discharges into the Caspian Sea in 2007 and 2008, nuisances (noise and vibration) in 2008 and 2009, and air emissions from mobile sources in 2010. In practice, they are followed by certain interventions by environmental enforcement authorities and even in some cases by urgent investments out of the President's Reserve Fund. However, one of the shortcomings of this approach is that it precludes the design of a more effective environmental enforcement system with a set of key measures that mesh together and are most likely to improve compliance. Moreover, it hinders the formulation of a strategic view towards the planning and management of the activity of MENR inspectors, including the evaluation of the resource requirements for staffing and infrastructure and capacity-building needs. The need for Azerbaijan to develop and implement a well-articulated environmental enforcement strategy was already addressed in recommendation 1.5 of the country's first EPR. In addition, the second EPR has highlighted the importance for the Ministry of Ecology and Natural Resources of considering such aspects of planning and managing of its environmental inspection activity as operational and human resources management, the enforcement toolkit available and actually used by environmental inspectors, and performance indicators for assessment of the effectiveness of environmental enforcement.

Recommendation 2.2:

In order to follow international practices on environmental inspection, such as the EU Minimum Criteria for Environmental Inspection, the Ministry of Ecology and Natural Resources should:

- (a) Improve the operational and human resources management in the relevant structures, including staff training, and upgrade its technical capabilities;*
- (b) Based on the implementation of the EPR-I recommendation 1.5, 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*
- (c) 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 environmental enforcement system in Azerbaijan relies almost solely on administrative fines for non-compliance with environmental requirements and standards. Once non-compliance has been established by environmental inspectors, as a rule, this is followed immediately by the imposition of a fine. At the same time, in 2007 extremely high fines for environmental offences were introduced in the country via amendments to the Code on Administrative Offences. While this was done to ensure the deterrent effect of administrative sanctions, some of them seem disproportionate and inefficient. In some instances, the fines foreseen by the Criminal Code are less than the administrative fines stipulated for similar illegal actions in accordance with the Code on Administrative Offences as amended in September 2007, e.g. on illegal fishing and illegal hunting of aquatic animals. In addition, the high number of appeals of decisions concerning the imposition of administrative fines and the imbalance as regards the amounts of fines and compensation for the period 2008–2009 provide clear signals in this regard.

Recommendation 2.3

The Cabinet of Ministers should launch a review of the system of administrative sanctions for non-compliance with the aim to make it more consistent, proportionate and efficient by covering the examination of the amounts of fines introduced in 2007 and possibilities to provide a more broad set of administrative sanctions, which are not limited only to monetary administrative penalties.

The statistical reports submitted by the Ministry of Ecology and Natural Resources to the State Statistical Committee do not cover the data on inspections and enforcement on conservation of biodiversity and

specially protected natural areas. They concern all the data on violations and enforcement actions taken by the following three MENR departments: the Department of Biological Diversity Protection and Specially Protected Nature Areas Development; the Department for Reproduction and Protection of Aquatic Bioresources; and the Forestry Department. One of the negative consequences of this situation is that these data are not available to the general public.

Recommendation 2.4:

- (a) *The Ministry of Ecology and Natural Resources should make publicly available data on established cases of non-compliance and enforcement measures (See chapter 3)*
- (b) *The State Statistical Committee in cooperation with the Ministry of Ecology and Natural Resources should reconsider the content of the statistical reporting form "1 – environmental protection" in order to cover the data on established cases of non-compliance and enforcement measures on protection of fauna, flora, forests and specially protected natural areas.*

* * * * *

Those following parts of recommendations from the first EPR of Azerbaijan that are still valid and their preceding conclusions are listed below.

While policy planning and legislation are important, overall success can only be measured through implementation. The current system of State ecological expertise is described in the 1999 Law on Environmental Protection, and it applies to a very broad range of products and services, activities and policies. In this respect, it combines both environmental impact assessment and strategic environmental assessment in a single package, with no clear differentiation between them. It is important to update the system and make it consistent with standard international practice.

EPR I - Recommendation 1.3:

The Ministry of Ecology and Natural Resources should undertake the following:

- (a) *Redesign the system of Ecological Expertise with environmental impact assessment legislation based on international experience and practices, with clear guidelines regarding screening and scoping procedures; initial steps towards decentralized decision-making in this area should be planned for the mid-term;*
- (b) *Develop separate legislation for Strategic Environmental Assessment (SEA), which applies to a higher stage of national planning and requires a higher degree of coordination.*

The Azerbaijani Government (including the Ministry of Ecology and Natural Resources) has a strong vertical administration that is well positioned for centralized implementation and enforcement. In the case of environmental legislation, compliance and enforcement responsibilities are mostly concentrated within the Ministry of Ecology and Natural Resources; its enforcement structures need to be better consolidated and empowered. This requires the development of new legal documents and procedures as well as adequate financing and human capacity. At the same time, the responsibilities of the central office and the regional divisions should be clearly delineated – particularly in the area of inspection.

EPR I - Recommendation 1.5:

The Ministry of Ecology and Natural Resources should assess the entire national framework for compliance and enforcement, with the aim of developing and implementing a well-articulated enforcement strategy, which should, inter alia:

- (a) *Identify the weaknesses in the present system of compliance and enforcement (e.g. absence of procedural documents, overlapping of responsibilities of various agencies, low level of financing and motivation, outdated standard- and payment-setting approaches, inadequate court proceedings) and prepare a list of legislative and institutional measures to address these problems. This list should form the nucleus of an action plan;*

(b) *Give special attention to the use of compliance promotion measures, (e.g., cleaner technology centres, voluntary environmental audits, environmental management systems and eco-labelling) in parallel with compliance monitoring and enforcement, and to setting firm and transparent procedures for this.*

Chapter 3. Monitoring, information, public participation and education

Azerbaijan has generally preserved its monitoring networks and made some progress in developing them further. It is currently installing five new (and automated) air-monitoring stations in Baku that will make it possible to measure, in particular, ground-level ozone and fine particulates. It has started analyzing water samples in transboundary segments of the Kura and Araz Rivers by two modern analytical laboratories. Azerbaijan has established an automated system to monitor background radioactivity in border areas. The Caspian Complex Monitoring Administration has received a substantial amount of analytical equipment and sampling facilities. Azerbaijan has renewed conducting annual marine expeditions to study the population health of commercial fish species and seals in its segment of the Caspian Sea. Preparation of forest inventories is under way.

At the same time, no change in the number of measured air and water parameters has taken place since 2003. Hydrobiological observations in surface water and ground water are not implemented in Azerbaijan. Sampling and analytical methods follow requirements set out in the 1989 and 1995 guidebooks. There are no institutional structures or formal arrangements in Azerbaijan to coordinate monitoring and environmental data collection activities conducted by various institutions. Intercalibration exercises between analytical laboratories of various monitoring institutions are sporadic or non-existent. Furthermore, enterprise environmental monitoring remains practically non-existent in the country.

Recommendation 3.1:

In order to strengthen the implementation of environment-related political decisions, the Ministry of Ecology and Natural Resources should:

- (a) *Continue expanding and modernizing environmental monitoring networks;*
- (b) *Establish a working group composed of representatives of its own monitoring institutions, of the Centre for Epidemiology and Hygiene of the Ministry of Health and of the National Academy of Sciences to help coordinating environmental monitoring activities, facilitate the development of up-to-date guidance material, facilitate staff training and to promote the organization of intercalibration exercises and comparison of sampling analysis results;*
- (c) *Develop, furthermore, detailed rules for environmental monitoring by enterprises using the Guidelines for Strengthening Environmental Monitoring and Reporting by Enterprises in Eastern Europe, Caucasus and Central Asia endorsed at the 2007 "Environment for Europe" Ministerial Conference.*

Public institutions conducting environmental monitoring and data collection in Azerbaijan maintain their own databases that are not interconnected with other. The National Environmental Monitoring Department (NEMD) at MENR regularly receives data resulting from monitoring activities of other MENR monitoring institutions on the basis of a dedicated form. In addition, NDEM receives for checking environmental statistical data reported by enterprises. MENR continues to update its State information and archive database on environmental protection and the use of natural resources, although many data sets and information stored therein are not in electronic form and are not easily accessible to users, including the general public. No operational database has been established so far that would link various data flows to help study cause-effect relationships and develop environmental assessments that would be user-friendly and accessible to all interested public authorities and the general public. Azerbaijan could benefit of the EU-funded project on Shared Environmental Information Systems (SEIS) launched in 2010, which is implemented by the European Environment Agency in cooperation with UNECE in the framework of the EU's Eastern Partnership and which aims to improve the availability of comparable environmental information across the six countries in the region that are part of the Eastern Partnership including Azerbaijan

Recommendation 3.2:

The Ministry of Ecology and Natural Resources should:

- (a) *Develop and regularly update a modern electronic database containing data from environmental monitoring activities, species inventories, enterprise environmental reporting and environmental statistical data.*
- (b) *Make the database accessible and user friendly to all interested public authorities and the general public.*
- (c) *Use, inter alia, the database to help study cause-effect relationships, develop environmental assessments, informing the public and report environmental data to the international community.*

Azerbaijan is making efforts to ensure that environmental information is accessible to the public. MENR regularly updates its website, and produces information leaflets and posters for the general public and press releases. In addition to an Aarhus Information Centre in Baku, two similar centres were established in Ganja and Gazakh. MENR maintains a dialogue with the environmental NGO community. NGO representatives participate in the work of expert commissions established at MENR. The Ministry of Health regularly uploads information on health and the environment on its website. At the same time, the Ministries of Economic Development, Industry and Energy, Agriculture and Transport do not actively communicate to the general public the environment-related data and information that they collect or produce. National communications to governing bodies of multilateral environmental agreements (MEAs) are not uploaded on websites in the country and are thus not available to the general public.

Recommendation 3.3:

- (a) *The Ministries of Economic Development, Industry and Energy, Agriculture and Transport should regularly upload on their websites the environment-related data and information that they collect or produce.*
- (b) *The Ministry of Ecology and Natural Resources should introduce a procedure for regularly uploading copies in the national language of national reports to MEAs on its website.*

Azerbaijan produces a substantive amount of environmental data and information. However, it does not publish state-of-the-environment reports. This is contrary to the country's obligations under the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, to which Azerbaijan is a party. MENR has not established a legal and institutional framework for producing regular environmental assessment reports, as recommended by the Guidelines on the Preparation of Governmental Reports on the State and Protection of the Environment and the Guidelines for the Preparation of Indicator-based Environment Assessment Reports in Eastern Europe, Caucasus and Central Asia, which were endorsed at the 2003 Kiev and 2007 Belgrade Ministerial Conferences "Environment for Europe", respectively.

Recommendation 3.4:

The Ministry of Ecology and Natural Resources should draft a resolution for submission to the Cabinet of Ministers for adoption on the establishment of a system for periodically producing national indicator-based environmental assessment reports taking into account the internationally agreed guidelines developed for countries of Eastern Europe, Caucasus and Central Asia and the guidelines developed by the European Environment Agency. Such a system should provide, in particular, for the creation of:

- (a) *An inter-agency expert group composed of officials from the Ministry of Ecology and Natural Resources and its monitoring institutions, the State Statistical Committee, the Ministries of Health, Economic Development, Industry and Energy, Agriculture and Transport, the National Academy of Sciences and environmental NGOs,*
- (b) *A dedicated supporting working unit within or under the Ministry of Ecology and Natural Resources.*

Azerbaijan has made some progress in involving the public in environmental decision-making. Commissions of the "Milli Mejlis" (Parliament) invite members of the public to participate in working groups preparing

draft laws. The public was widely consulted in preparing some governmental programmes such as the State Programme for Poverty Eradication. Representatives of research institutions and NGOs participate in SEE expert commissions. Public hearings are conducted on large projects subject to the EIA procedure. However, no procedures have been developed for holding public hearings. As a result, the public is not frequently informed about contact points to whom written comments should be sent or about deadlines for comments. Nor are members of the public informed whether their comments were taken into account in the decisions as a result of EIA and, if not, on what grounds. SEE decisions are not uploaded on the MENR website, although these may be accessed upon request. Nor is the information on environmental permits and licenses easily accessible to the public.

Recommendation 3.5:

The Ministry of Ecology and Natural Resources should develop, in consultation with NGOs, regulations supplementing existing laws to ensure that unambiguous and detailed procedures are in place guaranteeing public participation in environmental decision-making and public access to environmental information to comply fully with the Aarhus Convention.

See also recommendation 2.1 in this review.

In recent years, environmental issues have been introduced into preschool and school curricula. NGOs and some international organizations have launched initiatives on environmental education in schools in Azerbaijan. In higher educational institutions, a number of environmental subjects have been included in curricula. An educational standard on an Ecology subject has been approved. Training and retraining courses are organized on a regular basis in Azerbaijan for civil servants. Azerbaijan has decided to develop in 2011–2012 a State programme on environmental education and awareness-raising. Much remains to be done. Given the lack of a conceptual approach to environmental education in schools, it is doubtful whether the majority of school graduates will gain a holistic understanding of environmental concerns. Existing curricula and teaching aids do not comply with up-to-date requirements. Azerbaijan has not adopted a national strategy on education for sustainable development (ESD), as recommended by the UNECE Strategy on ESD. No inter-agency commission or expert group involving all stakeholders has been established in Azerbaijan to develop and promote the subsequent implementation of a national strategy.

Recommendation 3.6:

a) *The Ministry of Education and the Ministry of Ecology and Natural Resources should use the process of the development of a State programme on environmental education and awareness-raising to start a debate, involving all stakeholders including the mass media and NGOs, on priorities for the promotion of education for sustainable development in the country;*

b) *To better structure such a debate, a national commission on education for sustainable development should be established. The commission should also be entrusted with the preparation of the national strategy for ESD.*

Chapter 4. Implementation of international agreements and commitments

Overall, Azerbaijan has made significant progress on international environmental cooperation since the last EPR in 2003. Azerbaijan has ratified further international conventions and protocols and the number of bilateral agreements is growing steadily. In the negotiation process of the Tehran Framework Convention for the Protection of the Marine Environment of the Caspian Sea and its Protocols, Azerbaijan is starting to play a more active role in international policy development. However, the main focus has been on implementing the international commitments made, for which thanks to a fast-growing GDP more Government funds were spent.

Azerbaijan has made substantial progress in implementing its international commitments under some MEAs (e.g. Basel Convention, CBD, CITES, Tehran Framework Convention), but work done under other international conventions has been very limited (e.g. Convention on Long-range Transboundary Air

Pollution, Stockholm Convention, Espoo Convention) and often without strategic planning. Instead of proactive implementation, activities have only been undertaken at the request of MEA secretariats. To ensure that the secretariats effectively support Azerbaijan's efforts to implement its international commitments, reliable communication is a precondition. In the past, Azerbaijan did not always comply with its reporting duties under the MEAs.

Recommendation 4.1:

The Ministry of Ecology and Natural Resources and other institutions involved in environmental matters should fulfill commitments under the MEAs including compliance with reporting requirements concerning content and deadlines to their secretariats and ensure reliable communication.

Azerbaijan is a party to a number of MEAs and intends to accede to or ratify other international agreements. Implementing obligations to all various agreements will challenge the country's capacity if the country does not make use of synergies between the international agreements in a planned and effective way. Particularly in the area of biodiversity conservation, Azerbaijan is a party to a relatively high and still growing number of Conventions. To support rational implementation and to address similar environmental implementing obligations for the cluster of biodiversity-related agreements, various organizations working on biological conservation have developed a tool in order to implement biodiversity-related agreements in a coherent fashion.

A good example of the need for further cooperation is land degradation. Despite efforts undertaken by the Ministry of Ecology and Natural Resources, land degradation continues to pose a major challenge to Azerbaijan. Conflicts of interest and coordination problems between the Ministry of Ecology and Natural Resources and the Ministry of Agriculture impede the successful implementation of the necessary measures to stop land degradation and its negative medium to long-term impact on food security. However, the Ministry of Ecology and Natural Resources would consider exchanging information with other relevant Ministries and implement joint activities in the area of sustainable land management

Recommendation 4.2:

The Ministry of Ecology and Natural Resources should submit for approval to the Cabinet of Ministers written guidelines on coordination with other governmental agencies and institutions of the implementation of MEAs.

At the time of the second EPR, Azerbaijan had not developed a climate change strategy for mitigation of greenhouse gas emissions or adaptation to climate change. The assistance of international specialized agencies might become available, if needed.

The country can take advantage of the benefits of flexible mechanisms under the Kyoto Protocol. As the country's energy efficiency is still low, cost-effective reduction of greenhouse gas emissions is possible through the Clean Development Mechanism. Simplified modalities and procedures for small-scale CDM project activities reduce the administrative burden.

Recommendation 4.3:

In cooperation with relevant stakeholders, the Ministry of Ecology and Natural Resources should:

- (a) *Develop the second National Communication to the United Nations Framework Convention on Climate Change;*
- (b) *Develop national strategies on adaptation and mitigation to climate change taking into consideration evidence and analysis identified by the forthcoming second National Communication;*
- (c) *Make further efforts to raise awareness of potentially interested and relevant stakeholders about potential mechanisms, such as the clean development mechanism, GEF, Adaptation Fund, and the Climate Investment Fund. It is also important to review the applicability of simplified modalities and procedures for small-scale clean development mechanism project activities of the proposed CDM projects, set up the planned carbon fund and speed up the implementation of CDM projects.*

Setting targets for drinking water and related issues is an important obligation of the Water and Health Protocol of the Helsinki Convention, which Azerbaijan has not yet fulfilled. National and local targets will help Azerbaijan achieve the goal of drinking water and sanitation for all, as set by the Protocol and in Azerbaijan's targets related to Millennium Development Goal 7.

Recommendation 4.4:

The Government should set and achieve national and local targets as requested by the Protocol of Water and Health of the Helsinki Convention by implementing accordingly programmes of measures.

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Those following parts of recommendations from the first EPR of Azerbaijan that are still valid and their preceding conclusions are listed below.

Azerbaijan is actively developing international environmental cooperation in many areas with other countries, international organizations and institutions. In addition to having signed and ratified a number of global and regional environmental conventions, Azerbaijan has established many bilateral and multilateral partnerships and has concluded numerous framework and sectoral agreements. In most areas, Azerbaijan is harmonizing its legislation with international and European norms, in accordance with the requirements of the international conventions that it has ratified as well as in view of its interest in joining the European Union. To further meet its international obligations, Azerbaijan has drawn up general and specific policy and action plans and sought foreign assistance in programme formulation and implementation. The principles of sustainable development are a good basis for integrating a large variety of related issues.

While the Ministry attaches importance to international legal instruments, implementing and complying with the new norms and action plans have not been a priority for all institutions concerned. An analysis will provide clearer goals and ultimately ensure a stronger commitment from the ministries involved. To improve the situation, strategic plans for implementation should be developed as soon as ratification is proposed. They should go beyond the mere translation of international commitments into national legislation and include funding commitments for implementation and compliance. Instructions, norms and standards as well as action plans should be used for the implementation of national laws and international agreements.

EPR I - Recommendation 4.1:

(b) The Ministry of Ecology and Natural Resources should assess the cost of implementation of a new international legal instrument for environmental protection before ratification in order to acquire the necessary resources.

Chapter 5. Economic instruments and environmental expenditures for environmental protection

Progress has taken place in the areas under review in the period since the first EPR. Tariffs have become more cost-reflective and collection rates have increased. The economy is more resource-efficient and incentives for better environmental management have improved. However, the system of pollution charges remains unreformed and largely ineffective as a policy instrument. Environmental spending has increased significantly in recent years, with expansion driven by investment.

The system of pollution charges has not been changed since the last EPR, so the shortcomings pointed out there regarding lack of focus and limited influence in changing the behaviour of polluters remain valid. As rates have not been updated, the dissuasive value of the charges has been further eroded by inflation. System reform should be guided by a desire to achieve specific environmental targets, including in combination with the use of other policy instruments. Notwithstanding, some progress has been noted with regard to compliance.

Recommendation 5.1:

The Ministry of Ecology and Natural Resources, in cooperation with the Ministry of Economic Development and the Ministry of Finance, should make proposals for approval to the Cabinet of Minister to revise the system of pollution charges, targeting a reduced number of substances, substantially increasing rates and creating clear mechanisms for periodical rate revision.

Increased affluence has resulted in an expansion of car ownership. As a result, and following a decision to close down certain of the most polluting installations in Baku and replace their capacity with newly-built ones located in lower populated areas, emissions from mobile sources have become the main source of air pollution in urban areas. Regulatory means, such as projected import restrictions, can raise environmental standards. However, this could be complemented by economic incentives and further public investments.

Recommendation 5.2:

The Ministry of Economic Development, in cooperation with the Ministry of Finance, the State Customs Committee, the Ministry of Taxes and the Ministry of Ecology and Natural Resources, should explore the possibility of:

- (a) Introducing further differentiation in the customs tariff against the import of old cars;*
- (b) Creating positive inducements for the renewal of the car fleet, including through advantages in car-related taxes;*
- (c) Developing further public transport alternatives in major urban centres.*

There has been progress overall in charging users for the effective utilization of resources, including through advances with regard to metrification and tariff changes. However, collection rates in utilities are still unsatisfactory and there is no independent tariff-setting process, which does not facilitate private sector involvement.

Recommendation 5.3:

The Tariff Council within the Ministry of Economic Development together with other tariff-setting authorities should support further progress towards tariffs levels and collection rates that ensure full cost recovery in utilities while addressing social concerns through targeted support to vulnerable groups.

Rapid economic growth and the strengthening of public finance as a result of the development of the hydrocarbon sector have created new opportunities for financing public projects, including in the environmental domain. The massive investment effort is rapidly improving the environmental situation. However, while financing has been available, there is insufficient clarity as to concrete commitments over the medium-term. Strong public investment has been an appropriate and expedient way of quickly addressing existing shortcomings. As this effort is under way, increased attention should be paid to the efficiency of public spending and the involvement of the private sector, so to focus public sector intervention where it is most needed.

Recommendation 5.4:

The Ministry of Finance and the Ministry of Economic Development, in cooperation with the Ministry of Ecology and Natural Resources, should:

- (a) Prepare medium-term financial envelopes for environmental programmes, including investment components, projected public commitments and expectations of financing from other sources;*
- (b) Develop and apply cost-benefit methodologies that provide clear foundations for environmental spending and justify public sector involvement;*
- (c) Facilitate the dissemination of information on future spending plans, so to use public opinion as an input in efficient decisions and alert the private sector to possible commercial opportunities.*

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Those following parts of recommendations from the first EPR of Azerbaijan that are still valid and their preceding conclusions are listed below.

Azerbaijan has faced severe public sector budget constraints throughout the decade. These have resulted from, among other things, the fall in national income compared to the pre-transition period. This has reduced the availability of public finance for all socially important purposes, including the environment. Inadequate governmental funding, which remains the key source of finance for environmental protection, is a major obstacle for the attainment of environmental policy objectives.

Preparation of the budget of the Ministry of Ecology and Natural Resources is implemented with the participation of relevant departments and other bodies. Over the last two years, the Ministry has succeeded in increasing the funds by 150 percent, and these expenditures have been primarily targeted to strengthening and renewing technical capacities. The process is open and transparent, but funds are inadequate and could be used with greater efficiency, transparency and accountability.

EPR I -Recommendation 2.1:

The Ministry of Ecology and Natural Resources should improve the management of the State Environmental Protection Fund by addressing its accountability, transparency, cost-effectiveness and environmental effectiveness. The creation of an advisory board for the Fund with the participation of all interested parties, including the environmental NGO community, should be considered

While private and corporate resources (including the banking, finance and investment sectors) represent a valuable potential source of financing, their capacity is still used insufficiently. There is a need to harness commercial and foreign sources of financing for environmental investments. At present, however, there are cases where environmental requirements have been weakened in sales contracts for foreign investments. It is essential that the Ministry of Ecology and Natural Resources be involved in decision-making in the privatization process.

EPR I -Recommendation 2.2:

(a) The Ministry of Ecology and Natural Resources jointly with the Ministries of Economic Development, of Taxes and of Finance should:

- *Develop incentives for the public sector to effectively leverage private and foreign finance for the environment; and*
- *Build the capacity of the executive powers and municipalities to prepare environmental projects that can be co-financed on commercial terms.*

(b) The Ministry of Ecology and Natural Resources should be involved in the decision-making in the privatization process to promote environmental investments by the new enterprise owners.

Azerbaijan has introduced a wide range of environmental charges and other environment-related economic instruments. They are not, however, promoting changes in behaviour of businesses to prevent or reduce environmental pollution. The generally low rates, the failure to enforce the legislation and frequently inefficient collection are all factors that have weakened the efficiency and environmental impact of the system.

The aggregated revenue-raising capacity of pollution charges and other environmental economic instruments is too small to create a critical mass of resources to support significant environmental improvements. The revenue from these instruments represents only some 0.02% of the revenue from all types of charges and taxes in the country. Consequently, Azerbaijan needs to revise its policy of using economic instruments for environmental protection and the management of natural resources.

EPR I-Recommendation 2.5:

The Ministry of Ecology and Natural Resources should initiate a reform of environmental charges, fees, fines and compensation. This should involve, in particular, raising relevant rates to a level that would provide incentives to prevent or reduce pollution and the misuse of natural resources, and increase revenue substantially.

Chapter 6. Air management and permit issuing

The current national legal framework is obsolete and does not reflect the most recent internationally recognized developments in air quality assessment and management.

Air quality standards are based on the modification of the former Soviet system (maximum allowable concentrations – MACs); these standards are laid down for 88 pollutants; standards for PM10 or PM2.5 are not in place. Maximum allowable emissions, in fact emission ceilings at the level of particular installations expressed in mass units per unit of time, are calculated on an ad hoc basis from MACs, using a simple dispersion model. Technology-based emission limit values or generally binding quantified requirements to reduce emissions are not applied.

Recommendation 6.1:

The Ministry of Ecology and Natural Resources, in cooperation with the Ministry of Health, should:

- (a) Revise the air quality standards and harmonize them with those applied in the EU (at least for major pollutants – PM10, PM2.5, sulphur dioxide, nitrogen dioxide and nitrogen oxides, carbon monoxide, lead, benzene and ground level ozone) and in later phase, introduce the EU standards for arsenic, cadmium, nickel and polycyclic aromatic hydrocarbons.*
- (b) Adopt reasonable compliance deadlines for these new or revised air quality standards taking into account technical and economical feasibility; differentiated approach to particular pollutants should be applied (mandatory limit values, conditional target values and long-term objectives).*
- (c) Make proposals to the Government to ensure that financial resources needed for training and equipment to facilitate the transfer to these new standards.*

Since 2000, the total emissions of pollutants into the air do not exhibit any trend and are relatively delinked from economic development. Emissions of pollutants into the air from stationary sources show a declining trend and seem to be fully decoupled from the values of gross domestic product (GDP), and more than 50 per cent of generated air pollutants is abated. Emissions from mobile sources into the air have risen sharply in connection with the rapid increase in the vehicle fleet, especially cars. The emission inventory does not include all relevant items such as emissions from households and small businesses and emissions from diffused sources. Emissions from transport and from mobile sources are being assessed in an overly simplistic fashion on the basis of fuel consumption. Emission projections based on modeling are not available.

Air quality is not satisfactory in certain big cities, particularly in Baku, especially with regard to PM and nitrogen dioxide. Provided that the current economic development continues, the size of the vehicle fleet could increase by a factor of two or three in a short time, which would lead to a significant rise in emissions from mobile sources and to subsequent further deterioration of air quality in cities, especially for Baku.

The air quality monitoring network is obsolete and underdeveloped, with a limited number of stations, no automated stations, and no measurements of PM10, PM2.5 or ground-level ozone. No advanced treatment of monitoring data (modeling) is in place. No separate strategic or policy document on air quality management has been developed.

Recommendation 6.2:

The Ministry of Ecology and Natural Resources should:

- (a) In cooperation with the Ministry of Health and the Ministry of Transport, continue to upgrade the air quality monitoring network, especially with automated monitoring stations in other big cities in connection with new/revised air quality standards;*
- (b) Introduce a modernized methodology of emission inventories covering also small businesses, households and diffused sources of emissions and advanced methodology of assessment of emissions from mobile sources using the EMEP/EEA Air Pollutant Emission Inventory Guidebook;*
- (c) Introduce advanced air quality assessment methods (e.g. modeling by advanced dispersion models, chemical transport models or DPSIR models).*

Until 2009, air quality was not a priority in terms of environmental policy. Recently, several positive measures were implemented or planned to reduce emissions of pollutants into the air, especially in the case of mobile sources (development of transport infrastructure in Baku, licensing of vehicles, management of transport system in Baku, improvement of fuel quality, planting of trees around roads). Highly polluting industrial installations in Baku will be closed down and replaced by newly built ones located in sparsely populated sites. In addition, the monitoring network will be substantially upgraded in 2010–2012.

Recommendation 6.3:

The Ministry of Transport, in cooperation with the Ministry of Ecology and Natural Resources, as well as the Ministry of Industry and Energy should:

- (a) Further develop the existing sustainable transport strategy to address more effectively air pollution due to traffic problems and congestions in major cities with the appropriate measures, while fully incorporating environmental considerations;*
- (b) Adopt, implement and enforce as soon as possible EURO standards for mobile sources and set up adequate vehicle emission and technical control schemes to check compliance with these standards and to reduce emissions from private cars;*
- (c) The Ministry of Industry and Energy, in cooperation with the Ministry of Ecology and Natural Resources, should adopt and implement new fuel quality standards and set up adequate fuel quality control schemes.*

Since 2000, the system of environmental permit issuing has been fully based on obsolete Soviet practice (ad hoc approach to individual polluting installations) and does not reflect recent developments, especially as for integrated permitting (IPPC), which takes into account all environmental media and all environmentally relevant issues. Best available techniques (BATs) have not been defined and are therefore not taken into consideration during the permit issuing procedure.

Existing legal provisions do not create a sufficient basis for permit issuing, especially the absence of technology-based emission limit values, but also the lack of guidance on BATs. The EIA's role in the permit issuing process is not fully defined and depends on decisions by the competent authority. Obviously, EIA is carried out after the decision on the location of newly built installation is taken.

Quantified requirements are only applied in the case of emissions into the air and discharges of wastewater, which are calculated on an ad hoc basis for individual installations. Generally, binding quantified requirements to reduce environmental pollution are not in place.

Introducing IPPC and BAT concepts as well as technology-based emission limit values and other technical requirements could bring considerable environmental benefits: an integrated approach to permit issuing would eliminate or at least minimize the transfer of pollution from one environmental medium to another. In addition, it would lead to effective use of energy and material sources and to the minimization of waste generation. Finally, it would ensure, together with technology-based emission limit values and other

technical requirements, generally binding environmental performance of all installations while making it possible to set more stringent requirements in particular cases where compliance with environmental quality standards is endangered.

Application of Best Available Techniques (BAT) would lead, besides positive environmental impacts, to an increase in the general technological level of the country. EU BAT reference documents could be taken into account where possible when defining guidance for national BAT

The approach of ecological passports could be retained to serve as a background for integrated permit issuing in the case of existing installations in accordance with the IPPC approach applied in the EU, as all environmental information is collected in one technical document.

In the event that technology-based emission limit values and other generally binding pollution reduction requirements are introduced, the present ad hoc approach to permit issuing could be retained (in an updated form) to allow additional ad hoc flexibility in necessary cases (within the “space” created by generally binding requirements).

Recommendation 6.4:

The Ministry of Ecology and Natural Resources, in cooperation with other relevant ministries, should

- (a) *Introduce technology-based emission limit values and other generally binding quantified requirements to reduce environmental pollution for selected major polluting sectors / industries on a step-by-step basis (including technically and economically achievable compliance deadlines);*
- (b) *Define guidance for national best available techniques, taking into account country specific conditions; these national BATs should be taken as a background for setting technology-based emission limit values and for permit issuing;*
- (c) *Start preparing new legislation setting rules for environmental permit issuing, by introducing the concept of integrated pollution prevention and control (IPPC);*
- (d) *Define specifically the role of EIA within the permit issuing process; the current practice of environmental passports and the ad hoc approach to installations should become a part of the integrated permitting procedure.*

Since the ratification of the UNECE Convention on Long-range Transboundary Air Pollution (CLRTAP) in 2002, none of its protocols has been ratified or at least signed, whereas with other environmental conventions and protocols some progress can be seen. It should also be noted that some other counties in the region have moved towards ratification of recent UNECE CLRTAP protocols. Implementation of the requirements of protocols could bring about a considerable improvement in air quality in Azerbaijan.

Recommendation 6.5:

The Ministry of Ecology and Natural Resources should assess the costs and benefits of, and prepare the road map for, the implementation of the following protocols to the Convention on Long-range Trans-boundary Air Pollution: EMEP Protocol, Protocol on Heavy Metals, Protocol on Persistent Organic Pollutants (POPs) and the Gothenburg Protocol and then promote their ratification.

As an air quality assessment and management system is being developed and implemented separately from mitigation of climate change (reduction of GHGs emissions), potential synergies cannot be exploited. Use of an integrated approach, financing of GHG emission reduction measures could bring a “second effect” in improving air quality (and vice versa).

Recommendation 6.6:

The Ministry of Ecology and Natural Resources should, in cooperation with other relevant ministries, introduce an integrated approach to air quality management and climate change mitigation. In this respect,

the Ministry of Ecology and Natural Resources should focus on preferential support to non-combustion renewable sources of energy (hydro, solar, wind) as well as to energy efficiency measures and energy savings.

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Those following parts of recommendations from the first EPR of Azerbaijan that are still valid and their preceding conclusions are listed below.

The Law on Environmental Protection of 1999 provides the basis for developing and implementing programmes to combat air pollution. In 2001 a new framework Law on Air Protection was adopted. It sets out the requirements for monitoring, organization of activities, responsibilities of institutions, control and inspections, court procedures, and international cooperation. The Law foresees the issuance of 13 regulations with detailed procedures for air protection. The regulations have been adopted (last one in April 2003), and implementation has begun. The implementation of all these regulations for the Law on Air Protection will complete the modernization of air protection legislation in Azerbaijan.

The new Law on Air Protection also calls for changing the ambient quality standards from the old GOST standards to those consistent with international guidelines and standards such as the health-based air quality guidelines of the World Health Organization (WHO). The conversion of GOST standards into internationally accepted standards would be complicated and would require both training and financing. The standards require not only changes in quantitative values, but also changes in the whole data collection, processing and analysis systems, which is resource- and time-consuming.

EPR I - Recommendation 5.1:

(a) *The Ministry of Ecology and Natural Resources should as soon as possible, undertake the necessary actions to implement the regulations for the Law on Air Protection, in order to enforce air protection legislation in Azerbaijan.*

(b) *Consistent with the new Law on Air Protection, the Ministry of Ecology and Natural Resources, together with the Ministry of Health, should adopt and implement new air quality standards and emission standards for stationary sources. The air quality standards should be in line with WHO air quality guidelines. The necessary training, equipment and financial resources should be made available to facilitate the transfer to these new standards.*

Azerbaijan ratified the Convention on Long-range Transboundary Air Pollution in 2002, but did not ratify any of its Protocols. The main reason is said to be the lack of information on the national situation and also the lack of resources and equipment. Azerbaijan intends to ratify three Protocols (POPs, heavy metals, EMEP) in the near future. Participating in the international specialist work within the framework of the Convention could assist in training Azerbaijani air specialists. But before Azerbaijan ratifies the Protocols, it should carry out an analysis of the feasibility of ratification and develop appropriate plans and strategies for implementation of the Protocols.

EPR I - Recommendation 5.5:

(a) *The Ministry of Ecology and Natural Resources should develop appropriate strategies for the ratification and implementation of the Protocols to the UNECE Convention on Long-range Transboundary Air Pollution.*

(b) *The Ministry of Ecology and Natural resources should raise its need to develop air quality monitoring and reporting to address requirements under the Convention with the Executive Body of the Convention, thereby seeking assistance from the Convention's programme centres and from the other Parties to the Convention*

Chapter 7. Water management and protection of the Caspian Sea

Since the last EPR, there has been some progress in the water sector of Azerbaijan. However, enormous problems remain.

In some parts of the country, namely the most populated ones, adverse climatic conditions with low precipitation and high evaporation cause widespread water shortages. Moreover, the geological characteristics of large extensions of the country result in salinity of groundwater, which is exacerbated in some areas by inadequate drainage of irrigated lands. Inadequate water supply and irrigation networks cause high water losses.

Water resources are polluted owing to the lack of wastewater treatment plants in Azerbaijan and neighboring countries. Drinking water quality does not meet the required standards, and about 80 per cent of the water used depends on the Kura and Araz Rivers, which require very costly treatment. The deteriorating water quality of these rivers is a major problem for Azerbaijan, and has to be solved together with neighboring countries. There are ongoing negotiations with Georgia, and in 2007, a Memorandum of Understanding was signed by the Ministry of Environment of Ecology and Natural Resources of Azerbaijan and the Ministry of Environment Protection and Natural Resources of Georgia, providing for the establishment of working groups with the objective of exchanging monitoring information, protecting and using transboundary waters, and developing a joint programme in this area. Although direct negotiations with Armenia cannot yet take place at the political level, initiatives by international organizations have made technical cooperation possible.

Improvements have been achieved with the creation of Azersu as the national provider of water and wastewater treatment services, and the establishment of water user associations in irrigation. However, the very low water tariffs do not allow cost recovery or promote efficient use of water.

One major problem relates to water governance. There are no structural documents on water policy and strategy, and there is limited cooperation among the stakeholders in the water sector. The roles of MENR, the Ministry of Health, and the operational management of irrigation as well as of water supply and sanitation are specified, but their interaction with the other water stakeholders, such as hydropower-generation plants, farmers associations and domestic water users, are not defined. All these stakeholders should be involved in establishing a common vision for the water sector.

Recommendation 7.1:

The Cabinet of Ministers ought to give priority to the process of approval and to foster the establishment of the State Commission on Water Issues (which draft was already submitted by MENR), including representatives of different ministries, in order to improve the water sector by defining objectives and goals in the short and medium term, and coordination between the different water actors;

The Ministry of Ecology and Natural Resources should:

- (a) *Ensure that the national policy dialogue process on integrated water resources management is used as a platform for the preparation of a water strategy based on modern water management principles such as the integrated river basin management principles including transboundary initiatives in order to pave the way for international cooperation especially within the Kura River basin in cooperation with various relevant water stakeholder;*
- (b) *Submit this strategy for approval by the Cabinet of Ministers;*

In recent years and in the years to come, large investments are ongoing throughout the country on water treatment and wastewater networks using last-generation technology. Simultaneously, irrigation infrastructure is being improved and water user associations are being formed. Municipalities share responsibility for the protection and sustainable use of water resources. Monitoring and law enforcement structures are in place, a factor which facilitates planning and management. All these aspects have the

potential to significantly improve the water sector nationwide. However, given the current capacity and institutional setting, there is a risk that these efforts might not materialize fully.

In order to maximize the results to be achieved using the infrastructure and equipment that are becoming available, there is a need over time for increased planning and increased communication between stakeholders at the local level, which can be achieved by developing and implementing water basin management plans, as well as increasing the capacity of all operators for adequate and efficient operation and equipment maintenance and enhancing management skills.

Recommendation 7.2:

The Ministry of Ecology and Natural Resources should:

(a) *Establish within the Ministry a water department (or division), which should:*

(i) *Revise the Water Code and regulations in order to incorporate the river basin management approach and to increase the harmonization of the water legal framework with the EU water framework directive;*

(ii) *Coordinate the elaboration of the river basin management plans to be developed by the regional agencies with the participation of the stakeholders;*

(iii) *Create mechanisms for dialogue between the different water stakeholders;*

(iv) *Create a system for monitoring the implementation of the management plans and strengthen the relevant enforcement mechanisms on water-related issues;*

(v) *Create the conditions for capacity-building of the different water stakeholders (central and regional MENR staff, Azeru and the Joint Stock Company Irrigation and Water Economy and subsidiary companies staff, municipalities, water users, etc.) and increase their knowledge on technical issues, management and planning skills;*

(b) *Reinforce the regional agencies with water experts.*

The legal framework for water in Azerbaijan has not kept up with the existing institutional infrastructure that is being developed. While the construction follows mostly EU standards, the SNIP norms (from Soviet times) are still part of legislation. These norms require water storage and transmission capacity that is much higher and costly than Western standards. Present norms for wastewater treatment are unrealistic and much more stringent than international standards. It is commonly accepted that the new systems are not being designed to comply with the existing norms, but there is a need to ensure that they comply with internationally accepted norms. Furthermore, legislation in force requires the monitoring of an unrealistic high number of parameters, while at the same time only about one-third of the EU priority substances are covered by the list. It is not possible for the monitoring services to measure all the parameters, and it is not possible for the existing laboratories to determine some parameters with the required precision. The cost implications involved in monitoring and analyzing a wide range parameters are severe.

There is a need to reform water legislation to adapt it to the reality of the country and internationally accepted good practices (there are ongoing projects for convergence with EU legislation which is positive).

Recommendation 7.3:

(a) *The Ministry of Health, in cooperation with the Ministry of Ecology and Natural Resources and the State Commission on Standards, should proceed with the revision of norms and standards already started, and make sure all water types and uses are taken into account, and that the defined norms and standards are practical and economically feasible, while still complying with best practices worldwide (WHO, EU, etc)*

(b) *The Ministry of Ecology and Natural Resources should ensure that while the above is not achieved, the water and sanitation systems being built comply with international standards.*

In Azerbaijan, water resources are not well distributed, which is an obstacle for farming, while at the same time the problem of water losses is far from being solved. Whereas in the past farming was organized collectively, at present irrigation water needs tend to increase since each farmer plants independently

different crops with different water needs. One of the root problems is infrastructure, already mentioned above, but there are other causes that need to be addressed as well. Water tariffs are still highly subsidized, hindering efficient water use; water reuse is not promoted; and the installation of water meters is proceeding at a very slow pace. Water user associations require further capacity, and in some cases more responsibilities and joint work with the public sector.

Recommendation 7.4:

(a) *The Ministry of Ecology and Natural Resource, the Amelioration and Water Economy joint stock company, and Azersu should propose water tariffs that promote the efficient use of water and propose economic instruments to grant access to water for less well-off people. These tariffs should also allow for a full cost recovery to be applied in the maintenance of the systems;*

(b) *The Ministry of Ecology and Natural Resources and the Amelioration and Water Economy joint stock company should carry out a study to assess major hotspots of water losses throughout the country, assess the ways to reduce water needs (this would probably need incentives to change from some crops in some areas), and prepare a plan of action with short-term and medium-term components according to priorities - the implementation of the plan should include the participation of water user associations;*

(c) *The Ministry of Ecology and Natural Resources and the Amelioration and Water Management joint stock company should prepare awareness-raising campaigns for water users associations and end users to promote adequate planning of water utilization along the channels and sub-channels and culture of shared maintenance responsibilities;*

(d) *Azersu and other existing water utilities should install water meters so that they can charge for their services on the basis of actual consumption;*

(e) *The Ministry of Ecology and Natural Resources, Azersu and other water utilities should launch awareness-building campaigns to encourage water conservation in home installations and enterprises and for users to repair leakages inside their premises – a project should be devised by MENR and Azersu to address this last issue.*

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Those following parts of recommendations from the first EPR of Azerbaijan that are still valid and their preceding conclusions are listed below.

The water sector of Azerbaijan faces enormous problems. Adverse climatic conditions with low precipitation and high evaporation cause widespread water shortages. Poor-quality water-supply and irrigation networks cause very high losses. Payment systems are not based on actual water use and therefore give no incentive to save water. Water resources are polluted owing to the lack of waste-water treatment plants in Azerbaijan and neighbouring countries. The quality of drinking water does not meet the required standards. Owing to inflation, economic instruments such as abstraction charges and user fees have become meaningless.

The Government of Azerbaijan has taken a number of steps to reverse this negative situation. The most recent of these is the National Programme on Environmentally Sustainable Socio-economic Development launched in February 2003. It includes a number of specific actions aimed at improving the situation before 2010. The following recommendations in most cases coincide with the Government's plans and should therefore be considered as support to its efforts.

Many of the problems mentioned above are related to the lack of efficient cooperation among the stakeholders in the water sector. The creation of the Ministry of Ecology and Natural Resources was a clear improvement in this respect. The State Committee of Amelioration and Water Management focuses on water regulation and irrigation. The water-supply interests are defended by the Absheron Regional Water Company and the State Committee of Architecture and Construction. Waste-water management involves a number of entities: Baku and Sumgayit executive powers, the State Committee of Architecture and Construction and industries. Others with an interest in water include: hydropower-generation plants, farmers' associations and

domestic water users. All these stakeholders should be involved in establishing a common vision for the water sector. The basis should be a river basin approach rather than an administrative, territorial approach.

The deteriorating water quality of the Kura river is a major problem for Azerbaijan. It cannot be solved without involving Armenia and Georgia. Although multilateral negotiations cannot take place at the political level at present, initiatives by international organizations have made technical cooperation possible. This will be very important for the preparation of political discussions once this will again be possible.

EPR I - Recommendation 7.1:

The Ministry of Ecology and Natural Resources and the State Committee of Amelioration and Water Management should coordinate the development of a national strategy for the water sector based on the integrated river basin management principle. Such a strategy should also be agreed upon by other stakeholders.

Transboundary initiatives are encouraged in order to pave the way for international cooperation especially within the Kura river basin.

Although most of the legal framework was updated after independence, a number of regulations and norms from the previous system still apply. Some of these are inexpedient in a system where resources, e.g. energy, are charged at cost. The SNIP norms lead to an excessive use of resources: the per capita consumption rates are at least 100% higher than western standards and so are the system requirements for water storage and transmission capacity. The present norms for waste-water treatment are unrealistic and much higher than international standards, i.e. Azerbaijan requires maximum 6 mg BOD/l compared to the EU standards of 25 mg/l.

Charges for the abstraction of water have not been adjusted since 1993. Due to the high inflation in the mid-1990s, the charges have lost their real value and the money is no longer collected. The intentions behind the system of promoting the efficient use of resources and at the same time financing water management and monitoring activities are thus not fulfilled.

EPR I - Recommendation 7.4:

(b) Water-user charges should be increased to account for inflation

Chapter 8. Waste management

The changes in waste management in Azerbaijan, especially on the Absheron peninsula, are impressive and have the potential to considerably decrease the environmental impact from waste generation and disposal. Due to accumulation of problems in the past, current activities are focused on the most severe and visible cases and the results are positive. The following text summarizes the key decisions and actions taken:

First, defining clear responsibilities for accumulated waste and waste facilities enables the required action. Currently, all waste streams and waste accumulated in the past have a well-defined owner.

In the area of municipal solid waste (MSW) management, the division of waste generator (Baku City) and MSW servicing Tamiz Shahar JSC allows better control over waste generated and creates better conditions for introducing new technologies and improving the economics of waste management.

Regarding industrial waste, the most important decision was to demolish the old, often abandoned industrial sites in Baku and to develop new industrial zones in other areas. This has positively influenced the situation with regard to old accumulated waste, as well as waste currently generated by old technologies, and will continue to do so in the future. The industrial area of Baku is being replaced by residential buildings. This includes a plan for relocating the two refineries in Baku.

The fact that SOCAR has accepted responsibility for past oil pollution has benefits beyond the clean-up of polluted territories. First, this decision ensures the viability of remediation action, as it is not artificially limited by start/end dates of project financed by foreign donors. Second, accepting responsibility for old pollution sends an important signal to the international community that Azerbaijan is aware of its environmental situation and has the capacity and ability to improve it. The experience gained in Absheron can and should be used to improve waste management in other parts of the country.

The presence of major foreign investors like British Petroleum (BP) supports the creation of local consulting services geared to waste management, and the Government has learned to use their expertise for solving waste management issues and hence accelerating the modernization of waste management practice.

Further improvement of waste management after the promising start depends on the continuity of current actions, the expansion of activities to other regions, and a focus on waste streams that are not yet covered by currently defined actions.

Recommendation 8.1:

The Ministry of Ecology and Natural Resources should continue implementing actions on the Absheron peninsula and also extending these actions to other regions of Azerbaijan, mainly by:

- (a) Identifying environmental problems outside of Absheron peninsula caused by inadequate waste management;*
- (b) Focusing assistance of donors on these problems to prepare strategies and modernization and remediation plans;*
- (c) Defining concrete steps in order to develop advanced waste management in all regions.*

Waste-related data collected by the State Statistical Committee or the Ministry of Ecology and Natural Resources seems to be of low quality and most probably does not reflect reality. Although it is understood that there are limitations due to the undeveloped waste management infrastructure, the State Statistical Committee and the Ministry of Ecology and Natural Resources could improve the quality of collected data by gathering data from disposal facilities equipped with weighbridges.

Additionally, current waste statistics and other waste-related information do not seem to include waste generated by foreign investors active in Azerbaijan. From the environmental protection point of view, it is necessary to include data on waste generated by foreign investors, to have complete and internationally comparable waste statistics.

Recommendation 8.2:

The State Statistical Committee and the Ministry of Ecology and Natural Resources should jointly improve the quality of collected data on waste management by:

- (a) Collecting data on municipal solid waste accepted by Tamiz Seher Joint Stock Company at Balakhani disposal site, comparing results with existing estimations on MSW generation in Baku, and making adjustments in waste generation norms if discrepancies are identified*
- (b) Collecting data on industrial waste received by the National Centre for Hazardous Waste Management and verifying the existing data on industrial waste*
- (c) Including data on waste generated by foreign investors to national statistics*

The infrastructure for waste management in Baku, but in future not only in Baku, will require stable and sufficient financing of operating costs to avoid eventual failure of this infrastructure in the future due to lack of income from waste generators.

Recommendation 8.3:

The Ministry of Ecology and Natural Resources and the Ministry of Finance should:

- (a) Review and appropriately change current fees collected from citizens and industries for the use of waste collection and disposal services with the long-term goal of achieving cost recovery;*

(b) *Fully implement the 2008 Resolution of the Cabinet of Ministers No. 185 on Setting Fees for Collection, Separation, Recycling and Disposal of Waste.*

The safe storage of obsolete pesticides has been ensured, but there are still some additional actions which can further decrease environmental risks resulting from this type of waste. Furthermore, an improved picture of the obsolete pesticides would help the authorities carry out further actions. This could be done following international guidelines, such as those provided under the Stockholm Convention on Persistent Organic Pollutants.

Recommendation 8.4:

The State Phytosanitary Control Service of the Ministry of Agriculture, in cooperation with the Ministry of Ecology and Natural Resources, should:

- (a) *Prepare the inventory of pesticides according to the requirements of the Stockholm Convention;*
- (b) *Strengthen the system of monitoring the use of pesticides and other agrochemicals which may become hazardous waste, especially focusing on collection (e.g. by return to sale points) and safe disposal of unspent amounts and packaging.*

The situation regarding medical waste is unchanged, and waiting until the waste incinerator in Baku is developed does not seem to be an acceptable option. The Ministry of Health should prepare for the change in its waste management practice once the incinerator goes into operation in 2012. For certain (non-biological) medical waste, a temporary storage facility should be developed. This would avoid dumping part of medical waste until the incinerator comes on stream and create a back-up facility in case when the incinerator is not able to receive this waste due to maintenance or repair.

Recommendation 8.5:

The Ministry of Health should concentrate its efforts on implementation of the medical waste strategy and legislation, with a focus on:

- (a) *Development of relevant infrastructure (transportation, temporary storage and liquidation, containers) for safe delivery of medical waste.*
- (b) *Training of hospital/ambulance staff in separation of this type of waste*

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Those following parts of recommendations from the first EPR of Azerbaijan that are still valid and their preceding conclusions are listed below.

Information is essential for good policy. At the moment, statistics for industrial waste do not include all waste and do not reflect the real situation. An environmental audit of functioning enterprises as well as abandoned industrial sites is needed in order to identify all sources of industrial (non-hazardous) and hazardous waste. Similarly, an inventory of land contaminated by hazardous waste is essential before a systematic programme of clean up and reclamation is undertaken. These should be high priorities for the Government.

The Ministry of Ecology and Natural Resources provides information about mercury sludge and obsolete pesticides, and this can be found in the statistical reports. More efforts could be made to make this information accessible to the public, through, for example, issuing bulletins or information sheets, particularly as the issue relates to human health and the environment.

EPR 1 - Recommendation 6.2:

The Ministry of Ecology and Natural Resources, in cooperation with the Ministry of Economic Development and industrial enterprises, should:

- (b) *Draw up an inventory of abandoned industrial sites and create a database of all industrial waste;*

The system for municipal waste collection and disposal works well in Baku city, but there is no separation of municipal waste, except for glass bottles and bread. In cities and towns outside Baku, municipal waste is collected and transported to landfills, without any separation or treatment. Existing landfills do not meet sanitary requirements according to European standards and norms. As a result, there are several potential adverse effects, including penetration of groundwater with heavy metals, toxic organic chemicals and hazardous chemicals as well as contamination of the air in the vicinity of the landfills.

EPR 1 - Recommendation 6.5

Municipalities, in cooperation with the Ministry of Ecology and Natural Resources, should:

(b) *Construct facilities for the collection and reprocessing of this waste.*

Chapter 9. Biodiversity, forestry and protected areas

The Government has indeed made increased efforts to meet its biodiversity obligations, particularly by focusing on the creation of protected areas. However, genes, species and ecosystems, the components of biodiversity, continue to be under threat in the country as a result of harmful economic activities that do not take into account the need to conserve and sustainably use biodiversity and maintain ecosystem services. For example, unsustainable agricultural practices, such as overgrazing by privately owned sheep and cattle, has caused serious degradation and erosion of the land and increased biodiversity losses in the country. Other causes are the lack of availability of current information on rare and endangered species and, therefore, protection for some endangered species, lack of joint implementation of activities with other sectors in the efforts to support biodiversity conservation, and lack of public awareness.

Nor does MENR participate fully in such international processes as the Convention on Biological Diversity or pan-European processes like the Pan European Biological and Landscape Diversity Strategy (PEBLDS), ForestEurope (previously MCPFE) and the UNECE/FAO European Forestry Commission. Although it has submitted some reports, it would be essential for the Ministry to follow some of the key biodiversity and forestry discussions and negotiations in order to participate in the decision-making and priority-setting meetings of these processes. Furthermore, these international and pan-European processes engage in capacity-building, institutional strengthening and training activities that could help Azerbaijan keep up to date with the state of the art. These are also key platforms in which to show the advances made in the country and disseminate information on national activities and achievements.

The Red Data Book of Azerbaijan was published in 1989. Twenty-one years later and after several decrees promulgated to guide the work on the production of a new Red Data Book for Azerbaijan, there is still uncertainty about its publication. In the meantime, there is a lack of a public inventory on the status of vulnerable, endangered and critically endangered species of flora and fauna of Azerbaijan.

Recommendation 9.1:

The Ministry of Ecology and Natural Resources should finalize the Red Data Book and identify those species most in need of conservation attention to be able to preserve the unique biological diversity endowment of Azerbaijan and to reduce global extinction rates.

The 2006–2009 National Biodiversity Strategy and Action Plan (NBSAP) has concluded, and at this moment there is no coordinated biodiversity strategy to refer to when new activities are proposed or a presidential decree is adopted. It took three years to approve the previous NBSAP, and it would be extremely detrimental to biodiversity in Azerbaijan if there were no policy framework until 2013.

Recommendation 9.2:

The Ministry of Ecology and Natural Resources should:

(a) *Evaluate shortcomings in the implementation of the 2006–2009 National Biodiversity Strategy and Action Plan*

- (b) *Make the resulting documents publicly available, while making every effort to identify and address possible information gaps that existed in the past*
- (c) *Based on these evaluations, prepare in cooperation with relevant stakeholders a national biodiversity strategy and action plan to be submitted to the Government for approval. The national biodiversity strategy and action plan will:*
- (i) *Have a greater focus on conservation of biodiversity outside of protected areas, particularly on lands under agricultural use, as well as on sustainable use of the components of biological diversity and the equitable sharing of benefits arising out of the utilization of genetic resources;*
- (ii) *Define responsibilities to and seek synergies with other sectors and stakeholders in order to enhance their participation in forest conservation, protected area management, and the conservation and sustainable use of biodiversity;*

The Ministry of Ecology and Natural Resources should ensure that appropriate financial resources for the national biodiversity strategy and action plan are allocated under the budget system.

The establishment of protected areas has required large investments on the part of the people and the Government. These investments are worthwhile, especially in view that the protected areas have as a major objective the protection of rare, endangered and endemic species for the benefit of future generations at the national, regional and global levels. Another goal of the protected areas is the development of tourism in the national parks, which could also attract much-needed revenues and employment to the surrounding local communities. However, it is difficult to achieve conservation and sustainable tourism goals without good management of the protected areas. No management plans have been developed, apart from Hirkan National Park, which has had a management plan approved and Shah Dagh National Park, which has one in the pipeline. Management plans could be very costly to produce. A number of international organizations, such as IUCN-The World Conservation Union, have extensive experience in developing guidelines for management of different categories of protected areas.

Recommendation 9.3:

The Ministry of Ecology and Natural Resources should:

- (a) *Start developing management plans for the national parks by using the experience acquired during the development of the concluded management plans and guidelines for management of different categories of protected areas;*
- (b) *Provide training and build capacity of local experts to implement national park management plans.*

Many countries in Europe have put in place a National Forestry Programme (NFP), which is encouraged at the international and regional levels. FOREST EUROPE (Ministerial Conference for the Protection of Forests in Europe-MCPFE), the pan-European forestry process, promotes the adoption of NFPs and carries out a number of capacity-building and training exercises, in addition to developing common strategies for sustainable forest management in Europe. The countries in Europe, including Azerbaijan, have committed themselves to applying sustainable forest management principles by using the comprehensive and safe means and instruments elaborated by FOREST EUROPE. These include policy and operational-level guidelines, as well as principles for developing, implementing and evaluating national forest programmes.

There is low coverage of forests in the country and a lack of commercial wood production. The forests in Azerbaijan provide a number of ecosystem services that have to be taken into account in national planning.

Recommendation 9.4:

The Ministry of Ecology and Natural Resources should, as a matter of priority, set the objectives and goals for the forestry sector; implement sustainable forest management principles, and develop a national forestry programme in order to fulfil the important objective of increasing forest area to be submitted for approval to the Government.

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

CHAPTER 10: Land use, agriculture and desertification

The difficult social and economic problems are the main reason why farmers pay little attention to environmental issues. Even a severe threat to their future production capacity such as erosion is not given enough attention. Where there are no alternative energy sources to firewood, even forests planted to protect against erosion are being cut.

Land degradation is one of the most serious environmental issues in Azerbaijan. Processes such as erosion and desertification seem to be accelerating, which is distressing as they are to a large degree irreversible.

The Ministry of Agriculture, the Ministry of Ecology and Natural Resources, the State Committee for Land and Cartography, and the State Committee for Amelioration and Water Management are the four national authorities responsible for different aspects of agricultural policy and land management. Overlapping functions between these authorities and unclear mandates make decision-making and implementation of decisions related to land management difficult. As a result the very limited financial and human resources are used inefficiently. It is essential that each authority should have its own specific role and responsibility.

One option is to give the Ministry of Ecology and Natural Resources overall responsibility for planning and control with regard to land use and land conservation, to focus the responsibility of the State Committee for Land and Cartography on land markets and transactions, mapping and cadastres, and to merge the Ministry of Agriculture with the State Committee for Amelioration and Water Management. The merged ministry's main tasks would be to develop sustainable agriculture, agricultural markets, food security and services to the sector. The use of agricultural land and the development of irrigation would be important responsibilities for this new ministry.

In a reformed system of land management, it is important to involve and give more responsibility to the rayon, municipal and community levels. On the rayon level the different agencies involved should be made to cooperate under the governor. The municipal level, already important, could be even more influential.

Recommendation 10.1:

The Cabinet of Ministers should appoint an interministerial working group to review and rationalize the responsibilities for land management of the Ministry of Ecology and Natural Resources, the Ministry of Agriculture, the State Committee for Land and Cartography and the State Committee for Amelioration and Water Management as well as the rayon and municipal authorities. Among the issues to be resolved are the following:

- *Assignment of responsibility for an information system on land and land degradation; and*
- *Development of a strategy for land conservation and sustainable land use.*

It is understandable that environmental issues are not the primary focus of attention for the rural population and the farmers. The rural population may be more or less compelled to overexploit forests and pastures for their subsistence. This is the reason why, also from an environmental perspective, it is important now to support the general development of the agricultural sector and the rural economy.

* Following the decision of the EPR Expert Group, this annex contains parts of the recommendations, that are still valid, and their preceding conclusions from the first Environmental Performance Review of Azerbaijan that have not been covered in the preceding chapters of this EPR.

Azerbaijan has been quite successful in organizing extension services, which are a key instrument in the development of agricultural production. Farmers need support in their new role as independent farmers to find ways to earn a living and to develop their production. Some printed information material has been developed and distributed, but more needs to be done. Institutions in direct contact with farmers are the rayon offices of the Ministry of Agriculture, agricultural institutes, the 10 regional agro-scientific centres recently established by the Ministry of Agriculture, and NGOs. Private sector advisory services are also being set up in the framework of a World Bank project. The efforts made to develop the possibilities for farmers to get information and training are positive, but should be strengthened.

Recommendation 10.5:

The Ministry of Agriculture, in the longer term, should encourage the extension services to implement codes of good agricultural practices, including supporting the farmers to establish nitrogen management plans or apply integrated pest management. In this respect it is important to have a scientific basis and to make efforts to safeguard basic needs.

CHAPTER 12: Human health and environment

On top of ensuring compliance with norms and technical standards, experts should also engage in a critical appraisal of the overall monitoring system, and its functions, with a view to ensuring that the system serves the protection of public health in the most cost-effective and efficient way, taking into account also the latest international developments in the area. Improvement in this field would entail a thorough review of existing norms and standards and an in-depth revision of the monitoring procedures and the possibility to establish links between data related to the quality of water, food and other environment-related conditions with data coming from epidemiological and morbidity surveillance systems.

In addition, the rationalization of the monitoring system (e.g. by reducing the number of parameters to be monitored to those which are most relevant for public health protection) would help to concentrate resources on building capacity, upgrading monitoring and laboratory equipment, and improving analytical capacity only in selected areas.

Recommendation 12.3:

(a) *The Ministry of Health, in cooperation with the Ministry of Ecology and Natural Resources, should develop a strategy for the overall monitoring of environmental samples and disease surveillance that enables an evidence-based approach to associating environmental status with impact on human health. This should be carried out in collaboration with WHO and other international organizations or bilateral donors to ensure coherence with international standards and practices.*

(b) *In particular, national legislation on quality assurance standards should be reviewed and adjusted, and existing overlaps and duplications, e.g. in relation to environmental monitoring responsibilities, should be assessed and removed (e.g. in air quality monitoring).*

There is a need to improve the monitoring laboratories' analytical capacity and their adherence to quality assurance standards. At the same time, there are needs to upgrade the equipment of State and local laboratories, and to secure funds for the maintenance of this equipment. Consideration should be given to the possibility of partially recovering the cost of laboratory upgrades and equipment maintenance by providing value-added services, such as high-quality and sophisticated analyses, for a fee (e.g. to companies that may find it attractive to have their products analysed or certified without investing capital in developing in-house facilities to that end). This could also lead to the establishment of some analytical centres of excellence, where the initial investments in analytical equipment would ensure that the facility is used at full capacity and that the staff become highly competent. National monitoring and surveillance systems would be strengthened, and laboratory confirmation levels of clinical samples would be improved. This can be achieved by training the experts of the sanitary epidemiological services.

Support for the work of the National Department of Environmental Monitoring would go a long way to improving public health provided that internationally standardized monitoring equipment is in place with a view to linking its findings with both ecological and health data, and orienting the service towards surveillance of priority environment-related diseases. For example, while reductions in the rates of acute intestinal infections remain a challenge, a major effort should go into improving their detection by strengthening laboratory capacity.

Recommendation 12.4:

- (a) *The Ministry of Health should revise the health information system in the light of the policy objectives to be achieved and of the supportive analysis to be performed.*
- (b) *The Ministry of Health should develop indicators and establish and maintain rigorous procedures to ensure quality control and inter-laboratory comparability of results. The Sanitary Epidemiological Service could play a central role in developing and making available this capacity to local laboratories. It should also assess the possibility of developing partnerships with donors (e.g. international development agencies, foundations) to finance better laboratory facilities and technical capacity.*
- (c) *The Ministry of Health should continue to direct major efforts towards building the appropriate infrastructure and capacity in health professions dealing with the primary collection and management of health statistics. This should be carried out in line with the above recommendation, and to the extent possible within the framework of international collaboration and support. High priority should be given to investing in a transition from a manual to an electronic system for the collection, storage, transmission and processing of health data.*
- (d) *The possibility of developing partnerships and agreements with other key bodies, such as the Ministry of Ecology and Natural Resources, should also be considered for sharing information.*

The experience of WHO with the development of a core set of indicators for environmental health monitoring could represent a useful starting point to map out data requirements and their sources, and to assess feasibility issues related to the implementation of such a system.

Research in environment and health-related matters would greatly benefit from greater interactions with the international scientific community, including for the development of possible partnerships and the identification of resources for strengthening the capacity of researchers in preparing robust research proposals, addressing relevant research questions, conducting and managing research, and presenting its results according to established international quality standards and procedures.

Recommendation 12.5:

The Ministry of Health should encourage and support the Scientific Research Institute in strengthening its international outreach and capacity to build partnerships for conducting and funding research. The submission of research results to scientific peer-reviewed international journals should be strongly encouraged, as should the identification of potential international partners and donors to support research activities. This should be accompanied by further developing researchers' professional skills, including through the development of exchange programmes with other scientific institutions.

The issue of safe water supply and adequate sanitation remains a challenge, both in Baku and in the rest of the country, and poses a major threat to health through increased risks of water-related diseases. The fact that only the most affluent can afford bottled water or filters also raises issues of social equity. The Ministry of Health could play an important role in advocacy and development of preventive strategies, in addition to maintaining its responsibilities in the control of drinking and recreational water quality.

Recommendation 12.6:

The Ministry of Health should take advantage of opportunities provided by being a Party to the Protocol on Water and Health to develop partnerships with other relevant ministries and bodies and advocate the implementation of the policy recommendations set out in the Protocol, with a view to developing a comprehensive approach to water supply and sanitation, i.e. source protection, treatment and distribution of water; and disposal of human waste and waste water.

Radioactive contamination by low specific activity scales in residential areas in the vicinity of oil fields is raising concerns of a possible increased risk of leukaemia and other ionizing radiation-related diseases in the local population, and in particular in children. These concerns, however, have not yet been fully investigated.

EPR I - Recommendation 12.7:

The Ministry of Health, e.g. through the Scientific Research Institute, and with WHO assistance, should support the efforts of the Radiation Medicine Department in investigating the possible health effects resulting from exposure to radioactivity from low specific activity (LSA) scales in residential areas in the vicinity of oil field.

In spite of some localized initiatives, which are aimed at the separate collection and incineration of medical waste, in the vast majority of urban and rural areas medical waste is disposed of together with municipal waste, potentially causing microbiological and chemical contamination.

EPR I - Recommendation 12.8:

The Ministry of Health should work with the Ministry of Ecology and Natural Resources to revise present practices for the safe disposal of medical waste. Positive experiences developed in some health facilities (e.g. the separate collection of sharp materials in some hospitals in Baku) should be extended. The use of safe incinerating units should also be considered, as an alternative to landfilling, and criteria for the selection and operation of safe incinerators should be developed based on experience gained from existing programmes.

Implementation of 1st EPR recommendations*

PART I: THE FRAMEWORK FOR ENVIRONMENTAL POLICY AND MANAGEMENT

Chapter 1: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

Recommendation 1.1:

The Ministry of Ecology and Natural Resources, in consultation with other relevant institutions, should prepare and submit through Parliament or to the President, an implementation programme for a continuing process of policy-making for environment and sustainable development. This programme should provide an overall framework for policy; establish a schedule for monitoring, reviewing and revising policies; and indicate the relationship and hierarchy among policies. The programme should be of a multi-sector nature, and not be limited to only the obligations of the Ministry of Ecology and Natural Resources. To the extent possible, it should also specify sources of financing for implementation.

Azerbaijan has not made adequate progress as far as continuity is concerned. A first State Programme on Poverty Reduction and Sustainable Development for the period 2003–2005 was adopted. The country experienced a period of discontinuity between 2006 and 2008. The new State Programme on Poverty Reduction and Sustainable Development for the period 2008–2015 was adopted and will be implemented.

Recommendation 1.2:

The Ministry of Ecology and Natural Resources should continue and finalize its “gap analysis” of Azerbaijan’s environmental legislation, with particular reference to the Partnership and Cooperation Agreement with the European Union and other internationally adopted principles. Conclusions of this analysis would provide the basis for the development of a Plan for Legislative Work in the Environmental Sector, together with the Milli Mejlis Commission on Environment and other stakeholders, especially national nongovernmental organizations. The Plan should avoid being overambitious, and should take a step-by-step approach, sufficiently supported by growing human and financial resources throughout its implementation.

The Government approved the Plan of Actions on Approximation of Legislation with that of the European Union for the period 2007–2010, which compares EU and national legislation. Many EU directives in environmental areas have already been translated into Azeri. There is no evidence that a plan for legislative work in the environmental sector has been developed or approved.

Recommendation 1.3:

The Ministry of Ecology and Natural Resources should undertake the following:

- (a) Redesign the system of Ecological Expertise with environmental impact assessment legislation based on international experience and practices, with clear guidelines regarding screening and scoping procedures; initial steps towards decentralized decision-making in this area should be planned for the mid-term;*
- (b) Develop separate legislation for Strategic Environmental Assessment (SEA), which applies to a higher stage of national planning and requires a higher degree of coordination.*

This recommendation has not been fulfilled by Azerbaijan.

Compared with 2003, the system of State ecological expertise and its legislative framework in Azerbaijan have not undergone any significant changes. The environmental impact assessment (EIA) is still being carried out on the basis of a 1996 guidance document, albeit approved by Order of the Ministry of Ecology and Natural Resources (MENR), but not legally binding. Nevertheless, national legislation does not provide clear

* The first review of Azerbaijan was carried out in 2003 and published in 2004. During the second review, progress in the implementation of the recommendations in the first review was assessed by the EPR Team based on information provided by the country.

criteria or a list of activities that would make it possible to determine whether or not a given project is subject to environmental impact assessment.

In Azerbaijan, the decision-making system on environmental aspects of new public and private projects remains highly centralized. Many decisions on such projects are taken directly by the President or the Cabinet of Ministers, and in such a situation the opinion of the State ecological expertise often becomes a mere formality. The system of decision-making related to the State ecological expertise and environmental impact assessment within the Ministry of Ecology and Natural Resources is also strictly centralized, i.e. decisions on almost all issues are made by employees of the State Expertise Administration based in Baku.

Over the period under review, Azerbaijan neither developed nor adopted separate legislation on strategic environmental assessment, as a result of which the relevant provisions in the Law on the Protection of Nature and Nature Use have remained unchanged.

In 2009, the Environmental Centre under the Ministry of Ecology and Natural Resources developed a draft Law on Ecological Expertise and EIA Regulations. These two documents are currently being approved by various ministries. However, it is too early to assess the possible outcome of this initiative.

Recommendation 1.4:

The Ministry of Ecology and Natural Resources should restructure the State Control Inspectorate for Environment and Natural Resources (SCI), in an effort to:

- (a) Consolidate central and regional inspections into a single system, with clear rules of procedure and differentiation of responsibilities. This would include placing the regional inspection functions under the State Control Inspectorate and removing them from the Ministry's Department of Environmental Policy and Environment Protection. The restructuring process should also evaluate the relationship between regional inspectors for environment and those for health; (see also Recommendation 12.1)*
- (b) Provide greater autonomy to the State Control Inspectorate and sufficient resources for it effectively to carry out its work; and*
- (c) Strengthen the capacity of the State Control Inspectorate for Environment through intensive training of inspectors and through the implementation of a national standardized and mandatory recruitment exam for all inspectors.*

This recommendation was partially fulfilled by Azerbaijan.

Currently, the main functions related to environmental compliance and enforcement are concentrated in the Department for Environmental Protection under the Ministry of Ecology and Natural Resources. Thus, to some extent there was a consolidation of inspection functions within the framework of one department - the Department for Environmental Protection, but not the State Control Inspectorate. Also, there are sectors dealing with law enforcement within the following departments of the Ministry of Ecology and Natural Resources:

- (a) Department of Biological Diversity Protection and Specially Protected Nature Areas Development
- (b) Department for Reproduction and Protection of Aquatic Bioresources
- (c) Fishery Department

Within the framework of the slightly modified MENR structure, there were no significant changes compared with 2003 in terms of granting more autonomy to the environmental inspectors. Moreover, according to most of the inspectors interviewed, no significant progress was made in terms of funding their activities.

Activities aimed at enhancing capacity remain at a very low level within MENR. The interviews conducted and the documents studied in the course of the UNECE mission on the second environmental performance review in Azerbaijan did not reveal any system of education and training of environmental inspectors. Moreover, MENR does not conduct any tests when hiring environmental inspectors.

Recommendation 1.5:

The Ministry of Ecology and Natural Resources should assess the entire national framework for compliance and enforcement, with the aim of developing and implementing a well-articulated enforcement strategy, which should, inter alia:

(a) *Identify the weaknesses in the present system of compliance and enforcement (e.g. absence of procedural documents, overlapping of responsibilities of various agencies, low level of financing and motivation, outdated standard and payment-setting approaches, inadequate court proceedings) and prepare a list of legislative and institutional measures to address these problems. This list should form the nucleus of an action plan;*

This recommendation has not been fulfilled.

(a) During the UNECE mission on the second environmental performance review, no system for assessing the performance of environmental inspectors was brought to light. Key indicators for reporting and evaluation of work of environmental inspection services in Azerbaijan are still the number of inspection checks conducted, the amounts of the fines collected and compensation for environmental damage. As before, in Azerbaijan there is no clearly defined strategy for ensuring compliance with and enforcement of environmental legislation. The analysis of reports on the results of inspections and enforcement on the merits is not carried out; only a mere set of data is being kept and subsequently submitted to the Ministry of Ecology and Natural Resources; in addition, certain data are submitted to the State Committee on Statistics by the Department for Environmental Protection (statistical reporting form “nature protection – 1”).

(b) In general, it was not possible to establish a clear link between the developing legislative and institutional measures on environmental protection and natural resources and activities ensuring compliance with and enforcement of existing environmental legislation carried out by inspectors. Also according to the interviewed environmental inspectors, they practically do not participate in the discussion of new laws and regulations of environmental legislation.

Chapter 2: ECONOMIC INSTRUMENTS, ENVIRONMENTAL EXPENDITURES AND PRIVATIZATION

Recommendation 2.1:

The Ministry of Ecology and Natural Resources should improve the management of the State Environmental Protection Fund by addressing its accountability, transparency, cost-effectiveness and environmental effectiveness. The creation of an advisory board for the Fund with the participation of all interested parties, including the environmental NGO community, should be considered.

There have been no major reforms in the management of the State Environmental Protection Fund. No Advisory Board has been set up. However, the resources managed by the Fund are rather small in comparison with the overall means available to MENR.

Recommendation 2.2:

(a) *The Ministry of Ecology and Natural Resources jointly with the Ministries of Economic Development, of Taxes and of Finance should:*

(i) *Develop incentives for the public sector to effectively leverage private and foreign finance for the environment; and*

(ii) *Build the capacity of the executive powers and municipalities to prepare environmental projects that can be co-financed on commercial terms.*

(b) *The Ministry of Ecology and Natural Resources should be involved in the decision-making in the privatization process to promote environmental investments by the new enterprise owners.*

Commercial participation in environmental protection activities is still limited, although public demand for environmental services has encouraged private sector provision. MENR is represented on the commissions set up to decide on the privatization of specific companies, in order to ensure that environmental legislation is properly observed. No additional obligations or special conditions apply to these companies.

Recommendation 2.3:

(a) *The Ministry of Ecology and Natural Resources should develop a project portfolio aimed at solving priority environmental problems for submission to prospective donors. Projects should link environmental objectives with poverty reduction, local social and economic development, and strengthening governance. Beneficiaries should be directly involved in both project negotiation and implementation.*

(b) *The Ministry of Ecology and Natural Resources should also enter into discussions with the Ministry of Finance to prepare expenditure programmes, aimed at solving specific environmental problems, which are not only national but are above all international priorities (e.g. global or Transboundary environmental problems).*

The role of international donors is contemplated in development plans, in particular regarding water supply and sanitation and waste. Azerbaijan is working with a number of bilateral and multilateral donors in these areas, including the World Bank and the Asian Development Bank (ADB). However, environmental programmes often lack detail regarding expenditure commitments and the concrete role that international financing may play.

Recommendation 2.4:

The Cabinet of Ministers should proceed with the gradual elimination of environmentally harmful subsidies, starting with the energy sector using the UNECE Guidelines on Reforming Energy Pricing and Subsidies, which were endorsed at the Kiev Ministerial Conference "Environment for Europe" in 2003. The executive powers and municipalities should improve the collection of payments for water consumption and for municipal waste collection and disposal. This measure should be accompanied with a stepwise increase in tariffs to make the respective services self-financing.

Very significant progress has been observed in this area. Energy subsidies granted by the State Oil Company of Azerbaijan Republic (SOCAR) have been eliminated, utilities tariffs have increased and collection rates have improved markedly.

Recommendation 2.5:

The Ministry of Ecology and Natural Resources should initiate a reform of environmental charges, fees, fines and compensation. This should involve, in particular, raising relevant rates to a level that would provide incentives to prevent or reduce pollution and the misuse of natural resources, and increase revenue substantially.

There have been no reforms in the system of pollution charges since the first EPR issued in 2004.

Chapter 3: ENVIRONMENTAL INFORMATION AND PUBLIC PARTICIPATION

Recommendation 3.1:

The Ministry of Ecology and Natural Resources should consolidate further the role of its National Department of Environmental Monitoring as lead environmental monitoring agency responsible for core monitoring activities and coordination with all other administrations, research institutes, regional environmental centres and NGOs, collecting and processing environmental data. A merger of the Caspian Complex Environmental Monitoring Department and the National Department for Environmental Monitoring (NDEM), and the transfer of hydrometeorological laboratories to NDEM could be considered, among other measures.

A centre on environmental monitoring data was established in NDEM. The centre developed monitoring reporting forms that public institutions that are conducting environmental monitoring regularly complete and return to the centre. In 2007, MENR, by virtue of its decree No. 610/u of 8 November 2007, approved a form for submission by its regional departments of information on environmental conditions. Accordingly, each department submits to NDEM quarterly reports covering sources of air and water pollution and of waste generation in the region, quantitative and qualitative parameters of emissions, and state of land and biological resources.

Recommendation 3.2:

(a) *The Cabinet of Ministers should establish an institutional structure for inter-ministerial cooperation and coordination on environmental monitoring and information with the Ministry of Ecology and Natural Resources having the leading role.*

(b) *The development of a State system of integrated environmental monitoring and the preparation of a regular governmental report on the state and the protection of the environment should be core responsibilities of this structure (commission), which should be supported by a network of experts responsible for specific monitoring and information activities.*

In its resolution No. 90 of 1 July 2004, the Cabinet of Ministers approved the statute on Rules of Conducting Monitoring of the Environment and Natural Resources. The statute established goals and basic requirements, e.g. frequency and number of observation points, for 12 types of monitoring. There are no institutional structures or formal arrangements in Azerbaijan for coordination of monitoring and environmental data collection activities run by various institutions. Azerbaijan does not publish a state-of-the-environment report.

Recommendation 3.3:

(a) *The Ministry of Ecology and Natural Resources, when finalizing the State programme for strengthening environmental monitoring for submission to the Cabinet of Ministers, should include a detailed assessment (including cost assessment) of the investment requirements in basic environmental monitoring infrastructure, in particular in raw data collection, analytical and processing capacities, and equipment.*

(b) *The programme should also establish a clear perspective of extending monitoring activities, step-by-step, to soil, waste, biodiversity, and chemicals in ecosystems and foodstuffs to ensure integrated data collection covering quality, quantity, biodiversity and ecosystem aspects from the outset.*

According to the Plan for Implementation of Integrated Measures to Improve Environmental Conditions for 2006-2010, approved by Presidential Decree No. 1697 of 28 September 2006, the procurement of the equipment is underway for five automated monitoring stations to be installed in the capital city. In 2009, under a technical cooperation agreement with the International Atomic Energy Agency (IAEA), Azerbaijan established an automated system to monitor background radioactivity in border areas. Since 2002, inventories have been launched in forestry management units, one by one. In 2004, the Scientific and Research Fishery Institute resumed annual marine expeditions in the Azerbaijan segment of the Caspian Sea. Analytical laboratory equipment of NDEM and the Caspian Complex Environmental Monitoring Administration has been renewed with the support from international projects. A one-off contribution amounting to 260,000 manats was provided from the State budget for strengthening NDEM laboratories in 2005. In 2010, NDEM expected to receive funds from the State budget to acquire a mobile analytical laboratory.

Recommendation 3.4:

The Ministry of Ecology and Natural Resources should draft legislation making polluting enterprises responsible for monitoring their emissions and waste flows. It should also provide companies with guidance and incentives for voluntary reporting on their environmental performance.

Resolution No. 90 of the Cabinet of Ministers dated 1 July 2004 on the Approval of the Statute on Rules of Conducting Monitoring of the Environment and Natural Resources obliges the users of natural resources to report the results of their self-monitoring to MENR. However, no reporting forms for enterprises have been developed, as a result of which there is no enterprise self-monitoring reporting to environmental authorities in Azerbaijan.

Recommendation 3.5:

The Ministry of Ecology and Natural Resources, the State Statistical Committee, the Ministry of Health and the State Committee of Amelioration and Water Management should make environmental data, including environmental health data, collected with public funds freely available. They should make every effort to raise external funds, if necessary, to produce compact, easy-to-read products such as booklets presenting key environmental data, indicator reports and thematic leaflets or brochures, and to make them available on the Internet.

MENR regularly updates its website and produces information leaflets and posters for the general public and press releases. In addition to an Aarhus Information Centre in Baku, two similar centres were established in Ganja and Gazakh. The Ministry of Health regularly uploads onto its website information on health and the environment. However, Azerbaijan does not publish indicator reports.

Recommendation 3.6:

(a) *The Cabinet of Ministers should issue regulations supplementing existing laws to ensure that unambiguous and detailed procedures are in place guaranteeing public access to environmental information, public participation and access to justice on environmental issues to comply fully with the Aarhus Convention.*

(b) *These regulations should also simplify the registration procedure for environmental NGOs*

Two new laws that entered into force in 2005 supplemented the national legislation on public access to environmental information and on public participation in environmental decision-making. The 2005 Law on Access to Information, No. 1024-IIQ, provides the public with broad opportunities to access to information. The 2005 Law on Public Administration facilitates public access to information and public participation in decision-making. The Concept of State Support to NGOs was approved by the President on 27 July in 2007, and aims to form a stable and effective system of cooperative relations between public authorities and NGOs, to involve NGOs in resolving problems that were considered important for the development of the State and society, and to accelerate the development of civil society. On 30 June 2009, the Melli Mejlis adopted amendments to the Laws on Non-Governmental Organizations and on Grants. The amendments introduced some restrictions on NGO activities.

Recommendation 3.7:

The Ministry of Ecology and Natural Resources should establish a consultative body and procedure at the ministry with broad participation of national environmental NGOs in the development of environmental legislation, programmes and plans.

MENR invites representatives of selected NGOs to round-table discussions on key national environmental problems. Four such meetings were organized in 2009 at the NGOs' initiative and two meetings in early 2010. MENR organized round tables with NGOs on "Environmental Challenges of the Caspian Sea", "Sustainable Use of Water Resources and Protection of Water Bodies from Pollution", "Protection of the Ozone Layer", "The Caspian Sea is the Largest Lake of the World" and other topics. NGO representatives participate in the work of expert commissions established at the Ministry. MENR, meanwhile, did not establish a Consultative NGO Council at the Ministry.

Chapter 4: INTERNATIONAL COOPERATION

Recommendation 4.1:

(a) *The Cabinet of Ministers should give high priority to the implementation, compliance with and enforcement of international conventions and national laws by developing and putting in practice national environmental norms and standards, instructions and practical action plans following existing international commitments.*

(b) *The Ministry of Ecology and Natural Resources should assess the cost of implementation of a new international legal instrument for environmental protection before ratification in order to acquire the necessary resources.*

(a) The 2006 Presidential Decree on Implementation of International Conventions includes an action plan for implementing the provisions of the MEAs. Additionally, Azerbaijan has adopted a number of sector strategies and action plans related to the implementation of international conventions (e.g. the National Strategy and Action Plan on Conservation and Sustainable Use of Biodiversity, State Strategy for Hazardous Waste Management, the Hydrometeorology Development Program) or is in the process of doing so (e.g. the Strategy on Adaptation and Mitigation of Climate Change, the National Action Plan on Desertification). Some of the norms, standards or instructions established include the Rules on Regulation of International Trade for Customs Officers under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) or planned standards for storing hazardous waste. However, further work is needed in various areas in order to put international conventions and related national laws in practice.

MENR is of the view that the Cabinet of Ministers should attach greater importance to the implementation of international treaties, which finds its expression e.g. in the establishment of a separate division dealing with environmental topics within the Cabinet of Ministers, previously part of a Division on Agriculture and Environment.

(b) The recommendation has not been implemented. The acquirement of the respective financial resources for implementing a new legal instrument has not been seen as a problem due to increased Government spending in the area of environment.

Recommendation 4.2:

The Ministry of Ecology and Natural Resources should:

- *Speed up the development of a new law on the movement of hazardous waste based on the provisions of the Basel Convention;*
- *Set up the inventory of hazardous waste;*
- *Finalize the development of a classification system for hazardous waste based on the Basel Convention;*
- *Set up a database on the export, import and movement of hazardous waste in the country and*
- *Develop a permitting system for hazardous waste.*

The 1998 Law on Industrial and Municipal Waste was amended in 2007 and various resolutions were issued by the Cabinet of Ministers in order to comply with the provisions of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. A 2008 Resolution of the Cabinet of Ministers set rules for an inventory of industrial waste according to the Basel Convention classification, but a full inventory of hazardous waste has not yet been undertaken. The classification system according to the Basel Convention has been partially introduced by MENR, but the older classification is still in place and the State Statistical Committee intends to introduce the EU classification system, which will lead to confusion. A database on the export, import and movement of hazardous waste has been established. Azerbaijan does not issue permits, but makes frequent inspections to check adherence to the respective laws.

Recommendation 4.3:

The State Committee for Amelioration and Water Management, in cooperation with the Ministry of Ecology and Natural Resources, and in consultation with the appropriate authorities of the other riparian countries, should take steps to establish an intergovernmental working group composed of high representatives of the riparian countries of the Kura and Araz rivers (Armenia, Azerbaijan, Georgia, Islamic Republic of Iran and Turkey) to cooperate on the sustainable management of these rivers. The intergovernmental working group should coordinate all projects, plans and development affecting water quality and quantity in the Kura and Araz rivers.

The proposed working group has not been established. However, Azerbaijan has made substantial efforts to convince other riparian countries to the Kura and Araz rivers to ratify the Convention on the Protection and Use of Transboundary Watercourses and International Lakes in order to come to an agreement.

PART II: MANAGEMENT OF POLLUTION AND OF NATURAL RESOURCES

Chapter 5: AIR MANAGEMENT AND TRANSPORT

Recommendation 5.1:

(a) *The Ministry of Ecology and Natural Resources should as soon as possible, undertake the necessary actions to implement the regulations for the Law on Air Protection, in order to enforce air protection legislation in Azerbaijan.*

(b) *Consistent with the new Law on Air Protection, the Ministry of Ecology and Natural Resources, together with the Ministry of Health, should adopt and implement new air quality standards and emission standards for stationary sources. The air quality standards should be in line with WHO air quality guidelines. The necessary training, equipment and financial resources should be made available to facilitate the transfer to these new standards.*

Implementation has not yet begun.

Recommendation 5.2:

(a) *The Ministry of Transport, in cooperation with the Ministry of Ecology and Natural Resources, should develop a sustainable transport strategy that fully incorporates environmental considerations. The strategy should address the traffic problems of air pollution and congestion in major cities with the appropriate measures.*

(b) *The Ministry of Ecology and Natural Resources, together with the Ministry of Internal Affairs and its State Traffic Police, should use resources from the State budget and other environmental funds to set up an effective vehicle inspection and maintenance programme in order to achieve emission reductions from the privately owned vehicle fleet. As part of this programme, service and repair facilities with good diagnostic equipment and qualified technicians should be established.*

Implementation is ongoing. The Ministry of Transport has started introducing measures to improve the transport system in Baku (Intelligent Transport System, extension of metro lines, building of new parking places and completion of the city bypass).

Recommendation 5.3:

(a) *The Ministry of Transport, in cooperation with the Ministry of Ecology and Natural Resources, should develop, adopt and implement new emission standards for new mobile sources according to relevant European Union emission standards (Euro standards). In addition, adequate vehicle emission control schemes should be set up to check compliance with these standards.*

(b) *The Ministry of Fuel and Energy, in cooperation with the Ministry of Ecology and Natural Resources should adopt and implement, step by step, new fuel quality standards. Adequate fuel quality schemes should be set up to control the content of sulphur in diesel fuel and the content of lead in petrol fuel.*

Implementation is ongoing. After 1 July 2010, licensing of vehicles for business purposes will only be possible for those complying EURO 2 standards or higher. The current quality of fuels is at the EURO 2 level, but it is expected that the EURO 5 level will be achieved by 2015.

Recommendation 5.4:

(a) *The Ministry of Ecology and Natural Resources, together with the Ministry of Health, should gradually establish a system of continuous monitoring of the six "classical" pollutants (lead, PM 2.5/PM10,*

carbon monoxide, sulphur dioxide, nitrogen dioxide, ozone), to permit direct comparison with international guidelines and standards.

(b) *The Ministry of Ecology and Natural Resources should start submitting complete air emission inventories as soon as possible, following the methodology of CORINAIR and the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP).*

Eighteen parameters are measured in total in the country. No change in the number of measured parameters has taken place since 2003. Air concentrations of a number of air pollutants identified by the international community as most harmful to human health and the environment – ground-level ozone (O₃), fine particulates (PM_{2.5} and PM₁₀), volatile organic compounds (except Formaldehyde), heavy metals (except Mercury (Hg) and Lead (Pb)) and persistent organic pollutants – are not measured in Azerbaijan. The upcoming five automated monitoring stations in Baku will ensure continuous measurements of SO₂, NO_x, O₃, PM_{2.5} and PM₁₀. Potentially, two additional automatic stations to be located in Sumgayit and a mobile monitoring station will be purchased. The emission inventories in the country do not include all relevant items such as emissions from households and small businesses and emissions from diffused sources. Emissions from transport and from mobile sources are assessed in an overly simplified fashion on the basis of fuel consumption. Emission projections based on modeling are not available.

Recommendation 5.5:

(a) *The Ministry of Ecology and Natural Resources should develop appropriate strategies for the ratification and implementation of the Protocols to the UNECE Convention on Long-range Transboundary Air Pollution.*

(b) *The Ministry of Ecology and Natural resources should raise its need to develop air quality monitoring and reporting to address requirements under the Convention with the Executive Body of the Convention, thereby seeking assistance from the Convention's programme centres and from the other Parties to the Convention*

(a) The protocols under the UNECE Convention on Long-range Transboundary Air Pollution have not been ratified, as work in this area was not a priority. Azerbaijan intends to ratify the protocols in the near future, starting with the Protocol on Heavy Metals.

(b) There has not been any substantial progress in improving air quality monitoring and reporting, but MENR plans to acquire ten automatic stations in the near future and one EMEP station with the assistance of the Convention on Long-range Transboundary Air Pollution.

Chapter 6: MANAGEMENT OF WASTE AND CONTAMINATED SITES

Recommendation 6.1:

(a) *The Ministry of Ecology and Natural Resources, in cooperation with industry, should further develop the hazardous waste management system, which is currently in its initial stages. It should also include development and improvement of its infrastructure (testing procedures, laboratory practices, standard analytical methods for defining waste composition as well as technical guidelines on waste handling);*

(b) *The Government should adopt the draft national hazardous waste management strategy as soon as possible. The Ministry of Ecology and Natural Resources should facilitate this process, as appropriate;*

(c) *The Ministry of Ecology and Natural Resources, in cooperation with other relevant ministries, should develop and implement a new comprehensive law on waste management with relevant regulations and norms.*

(a) This part of the recommendation has been partially implemented. The hazardous waste system has been strengthened. A hazardous waste landfill has gone into operation at Sumgayit. The laboratory capacities have been improved, although specific testing procedures for hazardous waste have not yet been fully introduced.

- (b) This part of the recommendation has been implemented. The national hazardous waste management strategy was adopted via Resolution No. 117 of the Cabinet of Ministers in 2004.
- (c) This part of the recommendation was implemented. In the period 2004–2008, key hazardous waste management legislative norms were adopted. They are in line with international practice and the Basel Convention.

Recommendation 6.2:

The Ministry of Ecology and Natural Resources, in cooperation with the Ministry of Economic Development and industrial enterprises, should:

- (a) *Conduct environmental audits of functioning industrial enterprises;*
- (b) *Draw up an inventory of abandoned industrial sites and create a database of all industrial waste;*
- (c) *Prepare and implement an action plan for the rehabilitation of oil-contaminated sites by mechanical and/or biological method, including a mechanism for financing;*
- (d) *Make information concerning the threats to health posed by hazardous waste disposal sites readily available to the public;*
- (e) *Ensure that the sites are fully contained and inaccessible to the public.*

(a) This part of the recommendation was partially implemented, as waste audits (passports) of 34 oil sector companies were submitted to MENR. Work is ongoing for other industrial sectors.

(b) This part of the recommendation was not implemented. The adoption of a new waste classification system creates the possibility of developing a good database of industrial waste. However, many abandoned industrial sites in and around Baku are being cleaned up and restored.

(c) This part of the recommendation was implemented. The SOCAR Ecological Centre has mapped and investigated all oil-contaminated sites on Absheron. Already, 300 ha of land were remediated in 2009; an additional 400 ha are expected to be rehabilitated by the end of 2010.

(d) This part of the recommendation was implemented. Representatives of MENR, the Ministry of Health and the Ministry of Emergency Situations promote involvement of local population and NGOs in awareness-raising actions at several waste sites.

(e) This part of the recommendation has started to be implemented. The control of access to waste sites was introduced at Balakhany disposal site, Sumgayit hazardous waste site and the pesticide disposal site in Jangi.

Recommendation 6.3:

The executive power of Baku, in cooperation with other institutions involved in radioactive waste management, should:

- (a) *Draw up an inventory of all radioactive sources;*
- (b) *Rehabilitate the IZOTOP centre facility to meet international norms and standards for the environmentally sound disposal of radioactive waste. The long-term sustainability of the IZOTOP centre and maintenance of the plant should be ensured through fees to be charged to private enterprises that use this service. Public entities are expected to receive the service free of charge.*

The recommendation was implemented.

(a) A detailed inventory of old radioactive materials deposits and a reliable system of monitoring import/export and use of radioactive materials was finalized.

(b) The IZOTOP facility was fully upgraded to international standards. As it serves both the State and private sector, operating costs are covered by both sources.

Recommendation 6.4:

The Ministry of Ecology and Natural Resources, in cooperation with the Ministry of Agriculture, should conduct an environmental impact assessment of the pesticide storage facility and begin its rehabilitation, ensuring that the storage facility is contained, that there is no leaching into the soil and groundwater and that it can withstand all weather conditions;

The pesticide storage facility was completely rehabilitated and fenced. Pesticides were repacked and buried in covered concrete bunkers.

Recommendation 6.5:

Municipalities, in cooperation with the Ministry of Ecology and Natural Resources, should:

- (a) *Organize awareness-raising campaigns among the population to encourage them to separate recyclable waste;*
- (b) *Construct facilities for the collection and reprocessing of this waste;*
- (c) *On a step-by-step basis, construct new sanitary landfills for disposal of municipal waste on the basis of environmental impact assessments;*
- (d) *In the long term, construct incineration facilities for municipal waste in Baku.*

(a) This part of the recommendation has been partially implemented. Tamiz Shahr (Clean City) Joint Stock Company (JSC) organizes awareness-raising campaigns in Baku. NGOs are also carrying out some waste management activities in other parts of Azerbaijan.

(b) This part of the recommendation has not yet been implemented. Sorting of waste is currently done manually, only at Balakhany disposal site. There are plans to develop several recycling facilities around Baku.

(c) This part of the recommendation has been partially implemented. The EIA for Balakhany disposal site was completed. The site has been significantly upgraded. The development of a new site is planned in coordination with the construction of the incinerator. Work on the nationwide network of organized, sanitary landfills has not yet begun.

(d) The part of the recommendation has been partially implemented. An incinerator with a capacity of 500,000 t/y is under construction, and is scheduled to go into operation in 2012.

Chapter 7: WATER MANAGEMENT

Recommendation 7.1:

The Ministry of Ecology and Natural Resources and the State Committee of Amelioration and Water Management should coordinate the development of a national strategy for the water sector based on the integrated river basin management principle. Such a strategy should also be agreed upon by other stakeholders. Trans-boundary initiatives are encouraged in order to pave the way for international cooperation especially within the Kura river basin.

There is still no coordinated national water strategy and river basin management is not being implemented. The municipalities continue to have jurisdiction on the water bodies of local importance, and are responsible for protecting water bodies in their territory and stipulating the amount of water for consumption.

There has been a restructuring of Azersu that became the national water company (with responsibilities in water supply and sanitation throughout the country), which reduced the number of actors in the field and allowed for concentration of information and simplification of procedures.

In addition, the State Committee of Amelioration and Water Management became the Joint Stock Company of Amelioration and Water Economy.

These companies have their objectives and goals, which are discussed with MENR but also with other ministries such as Infrastructure and with the Cabinet of Ministers directly. Within MENR, different departments continue to deal with water issues, not always with fluid communication and articulation among them:

- (a) The Environmental Policy Division monitors policy implementation;
- (b) The Environmental Protection enforces the law;

- (c) The Caspian Complex Environmental Monitoring Department monitors the Caspian Sea's physical and geochemical properties;
- (d) The National Geologic Exploration Service performs groundwater research and monitoring (advisory);
- (e) The Department of State Environmental Expertise issues permits;
- (f) Hydrometeorological services perform forecasts and monitoring on water quantity; The Environmental Monitoring Service monitors water quality;
- (g) The Ministry of Health monitors water quality for human consumption and bathing water;
- (h) The Department of Bioresources monitors the increase of bioresources in water bodies and manages fisheries in the Caspian Sea.

There are ongoing negotiations with Georgia, and in 2007, a Memorandum of Understanding was signed between the Ministry of Ecology and Natural Resources of Azerbaijan and the Ministry of Environment Protection and Natural Resources of Georgia, providing for the establishment of working groups with the objective of exchanging monitoring information, protecting and using transboundary waters and developing a joint programme in this area. Although direct negotiations with Armenia cannot yet take place at the political level, international organizations initiatives have made technical cooperation possible.

Recommendation 7.2:

The Ministry of Ecology and Natural Resources, the Committee of Amelioration and Water Management, the water utilities and the water users should give high priority to reducing the high water losses in water-supply and irrigation systems. For this purpose, they should carry out a detailed analysis and prepare a step-by-step plan that prioritizes the work that needs to be carried out. The plan should include the following:

- (a) *The water utilities should install water meters so that they can charge for their services on the basis of actual consumption;*
- (b) *The Ministry and the water utilities should launch awareness campaigns to encourage water conservation in home installations and industrial enterprises;*
- (c) *The water utilities should repair leaky pipes in the water-supply networks; and*
- (d) *The State Committee of Amelioration and Water Management should reconstruct the irrigation infrastructure.*

There have been developments both for water and sanitation and for irrigation.

- (a) According to the MENR report to the Protocol on Water and Health in 2010, currently 41.4 per cent of the population and 100 per cent of industrial enterprises are equipped with water meters. Irrigation tariffs are currently charged by water consumption, although the price continues to be very low;
- (v) That is not done systematically, but presumably there have been some campaigns;
- (c) Leaky pipes have been being repaired and new ones have been set, e.g. 87.2 km of new/repared pipes in Baku City. Most of the leakages in the urban areas occur inside the buildings, out of reach for Azersu;
- (d) The budget of the Joint Stock Company Irrigation and Water Resources Management (JSCAWE) has been substantially increased, enabling the company to repair 400 km of channels each year (in 2003 it could only repair 100km), clean 1,000 km (in 2003 it could only clean 500 km). The company has new machinery and is more efficient.

Recommendation 7.3:

The Ministry of Ecology and Natural Resources should ensure that the amount of untreated or poorly treated domestic and industrial waste water is reduced. To this end,

- (a) *The Ministry, in cooperation with the executive powers, should carry out an analysis and prepare a step-by-step plan with clear priorities;*
- (b) *The respective executive powers should rehabilitate their sewage systems and wastewater treatment plants and/or build a new one; and*
- (c) *Industries should be required to pretreat their waste water properly before discharging it into municipal systems.*

(a) There is no national water and sanitation plan. However, JSC Azersu has its own company plan and the same holds true for SAWMA, the company responsible for waste management in Nakhchivan Autonomous Region. There are ongoing projects on Absheron peninsula as well as in the provinces, with loans from multilateral banks, bilateral cooperation and also with the state budget and oil fund.

(b) The Hovsan Waste Water Treatment Plan (WWTP) cleans 400,000 m³ of water/day; maximum capacity is 600,000 m³. A larger system is being built on a stretch of 80 km in the north of Absheron peninsula, and meanwhile benefit is being derived from 16 modular WWTPs. Also WWTP are being built in other cities in the country. As a result of these efforts, bathing water quality is improving in the Caspian Sea. However, much remains to be done.

(d) Measures are being taken in this regard. Nearly all industries are equipped with water meters and at least consumption from the network is monitored. Fines for companies discharging water which exceed limit values for parameters have been increased (range 2,750 – 3,250 manat (ten times a civil servant's salary) for the first fine, 18,000 manat if the company fails to pay) and claims can be calculated and imposed. The cost for discharging wastewater into the municipal sewerage is 0.2 manat/m³. However, the cost of discharging pre-treated wastewater into the natural environment is currently 1.2 kopek/m³, and, according to environmental inspectors the value should be increased.

Recommendation 7.4:

(a) *The Ministry of Ecology and Natural Resources should review and adjust the system of norms and standards. SNIP norms should be replaced by international norms that will lead to more feasible solutions. Wastewater discharge regulations should be harmonized with international, e.g. EU, standards.*

(b) *Water-user charges should be increased to account for inflation.*

(a) There is a proposal to change standards chemical demand 125 mg/l, solid 35 mg/l, BOD 25 mg/l. Inspectors were not aware of the infrastructure standards.

(b) Not done; both drinking water and irrigation water tariffs are very low, as a benefit to the population, provided by the Government. Irrigation water costs 50 kopek per 1,000 m³, while the budget for melioration is 98 per cent from the OGE. Azersu is self-financed, but water costs 1.2 manat/person/month.

Chapter 8: SELECTED CASPIAN SEA ISSUES

Recommendation 8.1:

The Ministry of Ecology and Natural Resources should facilitate the process of adoption of the National Caspian Action Plan and ensure its consistency with the Caspian Environment Programme's Strategic Action Programme. It should also support the Strategic Action Programme at the regional level.

Recommendations have been implemented. A regional Strategic Action Programme (SAP) and National Caspian Action Plans (NCAP) have been developed. A Strategic Convention Action Programme (SCAP) was endorsed by the second Conference of Parties in 2007. Major areas covered are the prevention, reduction of pollution and control of polluting activities from land-based sources, seabed activities, vessels, pollution caused by dumping, the protection, preservation and restoration of the marine environment, control of invasive species and preparation for emergencies. Azerbaijan has already undertaken several activities to comply with the provisions of the Framework Convention for the Protection of the Marine Environment of the Caspian Sea

Recommendation 8.2:

The Ministry of Ecology and Natural Resources should actively pursue and solicit support from the other Caspian States to ratify the Framework Convention.

Once all Caspian Sea littoral states had signed the Framework Convention for the Protection of Marine Environment of the Caspian, the Convention entered into force in 2006.

Recommendation 8.3:

The Government of Azerbaijan should cooperate with the other Caspian littoral States in establishing an environment fund for the Caspian Sea, specifying potential sources of financing and institutional responsibility.

The proposal of an environment fund for the Caspian Sea was discussed, but no agreement could be found; hence the proposal was dropped.

Recommendation 8.4:

(a) *The Ministry of Ecology and Natural Resources should promote the ratification by Azerbaijan of MARPOL as soon as possible;*

(b) *The Ministry of Ecology and Natural Resources should ensure full implementation of the Convention on Biological Diversity, including in relation to the biodiversity of the Caspian Sea.*

(a) Azerbaijan has accessed the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL) including all six amendments.

(b) MENR has put great efforts into implementing the Convention on Biological Diversity (CBD). The Government adopted the National Strategy and Action Plan on Conservation and Sustainable Use of Biodiversity in the Republic of Azerbaijan for the period of 2006 to 2010; its implementation is on-going. The protected area has been significantly increased since the last EPR. An inventory of ecosystems and species has been undertaken; but the Red Book list of threatened species has not yet been updated. Azerbaijan has also launched a programme focused on integrating ecological topics including biodiversity into school curricula.

So far, the focus has mainly been on protection, but less on the sustainable use or access and benefit sharing of biodiversity. Moreover, integration of biodiversity issues into other sectors is still weak.

Recommendation 8.5:

The Ministry of Ecology and Natural Resources, when finalizing its State programme for strengthening environmental monitoring, should include a plan for strengthening the monitoring of pollution levels of the Caspian Sea and for disseminating its results.

The 2007 Presidential Decree No. 2244 on the Protection of Caspian Waters from Land-based Pollution Sources strengthened monitoring of run-offs entering the Caspian Sea from the Azerbaijan territory. The Caspian Complex Monitoring Administration monitors the 955 km long shore of Azerbaijan at 341 monitoring points, both run-offs entering the Caspian Sea (310 industries, wastewater treatment plants, rivers) and 31 industrial installations (e.g. platforms) functioning at sea. During bathing season, it monitors bathing waters at the beaches jointly with relevant institutions of the Ministries of Health and of Emergency Situations. During compliance inspections, NDEM monitors the same on-shore pollution sources as does the Caspian Complex Monitoring Administration.

Chapter 9: BIODIVERSITY AND FOREST MANAGEMENT***Recommendation 9.1:***

To improve the implementation of the Law on Environment Protection, the Law on Specially Protected Areas and Objects, and the Law on Wildlife, the Ministry of Ecology and Natural Resources should, as soon as possible, improve implementation mechanisms for biodiversity management (specifying the roles of all responsible institutions at national, regional and local levels including protected area managers- and related activities, sources of financing, and a time frame) and incorporate them into the current legislation.

MENR has to a certain extent implemented this recommendation since 2003. The responsibilities of each department in the Ministry and associated governmental agencies responsible for biodiversity management

have been clearly identified. At the national and regional levels, the preparation and approval of annual budgets and activities are carried out by the various governmental institutions responsible for biodiversity management. The national parks also have annual budgets with associated activities, but as none of the parks have had Management Plans approved so far, there is no legal tool that each national park manager could use as an implementation mechanism. A park management plan would also facilitate the participation of key stakeholders in decision-making processes related to protected area management. Another implementation mechanism was the National Biodiversity Strategy and Action Plan, where the roles of the various institutions were associated with specific activities, but it ended in 2009. Azerbaijan still needs to incorporate implementation mechanisms for biodiversity management into the current legislation in order to institutionalize these implementation mechanisms, rather than continue to rely on ad hoc directives.

Recommendation 9.2:

The Ministry of Ecology and Natural Resources, in cooperation with other ministries, scientific institutions and non-governmental organization, should fully implement the Programme on Restoration and Expansion of Forests, by, inter alia:

- (a) Capacity-building for forest administrators and other forest experts (additional university education and on-the-job training);*
- (b) Strengthening the University Forest Faculty, especially in inventory methods and new techniques;*
- (c) Improving the efficiency of forest inspection, and*
- (d) Intersectoral cooperation (primarily agriculture and tourism).*

According to MENR, the Programme on Restoration and Expansion of Forests has been fully implemented in Azerbaijan. Forest restoration activities reaching 59,184 ha were carried out from 2003-2008. In 2009, after the completion of the programme, greening activities continued around the highways in the country and Absheron peninsula. Also in 2009, the Forest Development Department carried out forest restoration activities elsewhere covering 10,792 ha. In 2010, further forest restoration works were implemented around Baku-Guba, Baku-Shemakhy, Baku-Gazakh and Baku-Astara highways, as well as Baku City and Absheron peninsula. With regard to capacity-building and strengthening of the University Forest Faculty, MENR states that forest staff regularly participate in specialized courses to improve their skills and that the Forest Faculty has been supplied with more modern equipment. Despite these reported developments, Azerbaijan does not have a national forest programme, forest management plans, or a national forest inventory. Forest inspections have improved through the provision of horses for the guards and a hotline number for members of the community to report illegal logging. However, a forest inventory based on international standards is needed in order to more accurately assess the decrease in illegal logging and the benefits obtained from the programme on forest restoration and expansion. Many activities related to tourism and agriculture are taking place through the enterprises operating in the forests, but these activities are not carried out under a specific strategy for sustainable tourism development or sustainable agriculture in forest areas. The Ministry still needs to make efforts to improve intersectoral cooperation with the Ministry of Agriculture to be able to implement more sustainable sectoral policies, especially with regards to overgrazing of cattle and sheep.

Recommendation 9.3:

It is recommended that the Ministry of Agriculture together with the Ministry of Ecology and Natural Resources should initiate discussions with donors and international organizations to establish projects that would contribute to the future conservation of landraces of crop plants and domestic animals. The promotion of landrace conservation should be included in the national biodiversity strategy and action plan.

In discussions with the Ministry of Agriculture, MENR and the Academy of Sciences, the only cooperation mentioned regarding the conservation of landraces of crop plants and domestic animals was the addition of relevant activities in the National Biodiversity Strategy and Action Plan (NBSAP). However, since no report on the implementation of NBSAP has been made publicly available, it is not possible to assess whether they were carried out, and if they were, the effectiveness of these activities. The Academy of Sciences Genetic Resources Institute did report that international organizations have provided financing for capacity-building

related to collection and conservation of agricultural plants and wild relatives. The Genetic Resources Institute recently submitted a report to the International Treaty on Plant Genetic Resources with an inventory of plant genetic resources in 2006. No inventory of animal genetic resources has been published since 2003, but the Genetic Resources Institute is currently building a database with this information.

Chapter 10: LAND USE, AGRICULTURE AND DESERTIFICATION

Recommendation 10.1:

The Cabinet of Ministers should appoint an interministerial working group to review and rationalize the responsibilities for land management of the Ministry of Ecology and Natural Resources, the Ministry of Agriculture, the State Committee for Land and Cartography and the State Committee for Amelioration and Water Management as well as the rayon and municipal authorities. Among the issues to be resolved are the following:

- (a) Assignment of responsibility for an information system on land and land degradation; and*
 - (b) Development of a strategy for land conservation and sustainable land use.*
- (see Recommendations 10.2 and 10.3).*

An interministerial working group has not been established.

The National Programme on Rational Use of Summer and Winter Pastures, Hayfields and Combating Desertification was adopted in 2004. Actions within the Programme are being implemented.

Recommendation 10.2:

Based on the decisions of the Interministerial Working Group (see Recommendation 10.1), the responsible body should develop an integrated and unified database on land and land degradation as direct support to the development of a strategy for land conservation and sustainable land use, and land management projects and programmes. The database should be accessible to all authorities and other stakeholders in land management and land conservation.

In 2006–2009, the UNDP project on Capacity-Building and On-the-Ground Investments for Integrated and Sustainable Land Management was implemented. A database on land and land use has been developed within the project.

Recommendation 10.3:

Based on the decisions of the Interministerial Working Group (see Recommendation 10.1), the responsible body should:

- (a) Develop a prioritized and integrated strategy for land conservation and sustainable land use; and*
- (b) Derived from this integrated approach, develop targeted programmes for priority issues, for example, for combating desertification or improving pasture. Projects should be developed to test different policy tools.*

A prioritized and integrated strategy for land conservation and sustainable land use was not developed. Instead, the 2006 Comprehensive Action Plan on Improvement of the Environmental Situation for the period 2006–2010, which includes some actions to combat desertification, is being implemented.

Recommendation 10.4:

The Ministry of Agriculture should promote the development of organic farming and eco-labelling of food products. Support should primarily be directed towards capacity-building and the establishment and development of organizations for organic farming.

The system of organic farming and eco-labeling of food products is not yet in place in the country.

Recommendation 10.5:

The Ministry of Agriculture, in the longer term, should encourage the extension services to implement codes of good agricultural practices, including supporting the farmers to establish nitrogen management plans or apply integrated pest management. In this respect it is important to have a scientific basis and to make efforts to safeguard basic needs.

Codes of good agricultural practices have not been implemented, nitrogen management plans have not been established and integrated pest management is not applied.

PART III: ECONOMIC AND SECTORAL INTEGRATION**Chapter 11: ENVIRONMENTAL CONCERNS IN THE OIL AND GAS SECTORS***Recommendation 11.1:*

The Ministry of Ecology and Natural Resources should:

- (a) Register contaminated sites and identify the level of contamination;*
- (b) Determine the methods used for sealing offshore wells;*
- (c) Determine the standards for the clean-up of contaminated offshore and onshore sites; and*
- (d) Provide financial means for the work to be undertaken to seal the wells, either from the State budget, the Oil Fund, or an environmental royalty on present production.*

Sites polluted by past exploration and exploitation of oil and gas along the coast of the Caspian Sea and nearby land, especially on the Absheron peninsula, have been investigated and mapped, and clean-up has already started on several sites. The SOCAR Ecological Department, established in 2006, plays a major role in planning, performing, coordinating and monitoring these actions. This department performed detailed mapping of oil polluted territories on the Absheron Peninsula and published the Atlas of Pollution on Absheron peninsula in 2009, creating a broad database of information for planning clean-up activities.

Recommendation 11.2:

- (a) SOCAR should begin the transition to divesting itself of the responsibility of negotiating and approving contracts with foreign companies so that it may concentrate on its managerial responsibilities and implement fully the presidential decree of January 2003 calling for its reorganization. And*
- (b) The Ministry of Fuel and Energy should complete its staffing and strengthen its capacity to be able, at the earliest possible opportunity, to assume all its legal responsibilities, including that of negotiating contracts.*

Since 2003, SOCAR has gradually terminated all the contracts with the foreign companies dealing with the onshore and offshore drilling. The local companies that carry out drilling on the oil fields apply modern technologies.

Recommendation 11.3:

The Cabinet of Ministers should establish two advisory boards -- one for offshore and one for onshore activities, each with representatives from relevant ministries, including, in particular, the Ministry of Fuel and Energy and the Ministry of Ecology and Natural Resources, local economic interests and non-governmental organizations. The advisory boards should be supported by a secretariat able to call in independent investigations. The boards could also play a major role in the work for recommendation 11.1.

The Cabinet of Ministers has established two advisory boards -- one for offshore and one for onshore activities, each with representatives from relevant ministries, including, the Ministry of Ecology and Natural Resources, the Ministry of Industry and Energy, the Ministry of Emergency Situations, the Ministry of Health, the Academy of Sciences, and NGOs.

Recommendation 11.4:

The Ministry of Ecology and Natural Resources, in cooperation with the Ministry of Fuel and Energy, should assess the environmental impact of the activities being undertaken under each production sharing agreement within five years after the start of operations, at regular intervals thereafter and after a site has been abandoned.

MENR, in cooperation with the Ministry of Fuel and Energy, assesses the damage for the environment of the activities being undertaken under production sharing agreements. The reports with the estimation of the damage are approved by the relevant MENR departments.

Chapter 12: HUMAN HEALTH AND ENVIRONMENT*Recommendation 12.1:*

(a) *The Ministry of Health should revise and update the NEHAP, which was drafted in 1991, to reflect the current situation.*

(b) *The Ministry of Health should then ensure that the NEHAP is adopted and implemented in collaboration with the Ministry of Ecology and Natural Resources, and other relevant agencies and stakeholders.*

(c) *In particular, the respective ministries should consider joint application for funds for priority actions under the NEHAP, NEAP and the State Programme on Poverty Reduction and Economic Development.*

The Ministry of Health has developed a new draft national environment and health action plan, which still has to be adopted.

Recommendation 12.2:

The Cabinet of Ministers should redefine and clarify the respective functions and responsibilities of the Ministry of Health's Inspectorate and that of the Ministry of Ecology and Natural Resources. Such clarification should include their specific areas of competence, the conditions for intervention and their relation with local agencies, such as local sanitary epidemiological centres, and the procedures for handling potential disagreements, should they arise.

The controlling functions of the Ministry of Health and MENR were clarified by a regulation of the Cabinet of Ministers as well by the 2008 Code on Administrative Offences.

Recommendation 12.3:

(a) *The Ministry of Health, in cooperation with the Ministry of Ecology and Natural Resources, should develop a strategy for the overall monitoring of environmental samples and disease surveillance that enables an evidence-based approach to associating environmental status with impact on human health. This should be carried out in collaboration with WHO and other international organizations or bilateral donors to ensure coherence with international standards and practices.*

(b) *In particular, national legislation on quality assurance standards should be reviewed and adjusted, and existing overlaps and duplications, e.g. in relation to environmental monitoring responsibilities, should be assessed and removed (e.g. in air quality monitoring).*

No strategy for the overall monitoring of environmental samples and disease surveillance has been developed. The national legislation on quality assurance standards has not been reviewed and adjusted.

MENR and the Ministry of Health cooperate closely within the WHO programme on environment and health. Each ministry carries out monitoring under its mandate, and there is regular exchange of the monitoring results between them.

Recommendation 12.4:

- (a) *The Ministry of Health should revise the health information system in the light of the policy objectives to be achieved and of the supportive analysis to be performed.*
- (b) *The Ministry of Health should develop indicators and establish and maintain rigorous procedures to ensure quality control and inter-laboratory comparability of results. The Sanitary Epidemiological Service could play a central role in developing and making available this capacity to local laboratories. It should also assess the possibility of developing partnerships with donors (e.g. international development agencies, foundations) to finance better laboratory facilities and technical capacity.*
- (c) *The Ministry of Health should continue to direct major efforts towards building the appropriate infrastructure and capacity in health professions dealing with the primary collection and management of health statistics. This should be carried out in line with the above recommendation, and to the extent possible within the framework of international collaboration and support. High priority should be given to investing in a transition from a manual to an electronic system for the collection, storage, transmission and processing of health data.*
- (d) *The possibility of developing partnerships and agreements with other key bodies, such as the Ministry of Ecology and Natural Resources, should also be considered for sharing information.*

In order to assess the state of the environment on human health, the Ministry of Health coordinates the social and environmental health monitoring system. The health information database is being developed.

Recommendation 12.5:

The Ministry of Health should encourage and support the Scientific Research Institute in strengthening its international outreach and capacity to build partnerships for conducting and funding research. The submission of research results to scientific peer-reviewed international journals should be strongly encouraged, as should the identification of potential international partners and donors to support research activities. This should be accompanied by further developing researchers' professional skills, including through the development of exchange programmes with other scientific institutions.

The Ministry of Health supports and coordinates the activities of subordinated research institutes, and sanitary and epidemiological institutions. The Ministry of Health also cooperates with the international organizations, including WHO.

Recommendation 12.6:

The Ministry of Health should take advantage of opportunities provided by being a Party to the Protocol on Water and Health to develop partnerships with other relevant ministries and bodies and advocate the implementation of the policy recommendations set out in the Protocol, with a view to developing a comprehensive approach to water supply and sanitation, i.e. source protection, treatment and distribution of water; and disposal of human waste and waste water.

In 2010, the country reported on the status of implementation of the Protocol on Water and Health. To comply with the provisions of the Protocol, Azerbaijan should set targets related to the quality of drinking water supplied, which has not yet been done.

To develop a comprehensive approach to water supply and sanitation in rural areas, the Presidential Order on Improving the Supply of Population with Ecologically Pure Water has been adopted and is being implemented. Water purification units have been built in 122 villages in 12 districts, providing a population of 224,000 people with drinking water meeting WHO standards. Currently, each resident of the countryside gets up to 30 litres per day of water for drinking purposes. It is expected that this programme will cover 500 villages and 800,000 people.

Recommendation 12.7:

The Ministry of Health, e.g. through the Scientific Research Institute, and with WHO assistance, should support the efforts of the Radiation Medicine Department in investigating the possible health effects resulting from exposure to radioactivity from low specific activity (LSA) scales in residential areas in the vicinity of oil field.

The recommendation has not been implemented.

Recommendation 12.8:

The Ministry of Health should work with the Ministry of Ecology and Natural Resources to revise present practices for the safe disposal of medical waste. Positive experiences developed in some health facilities (e.g. the separate collection of sharp materials in some hospitals in Baku) should be extended. The use of safe incinerating units should also be considered, as an alternative to landfilling, and criteria for the selection and operation of safe incinerators should be developed based on experience gained from existing programmes.

The Ministry of Health developed regulation on the requirements for medical waste management, which was adopted by the Cabinet of Ministers on 28 December 2007. Although there are some improvements, especially in management of the medical waste in the private health sector, where several clinics and ambulances in Baku are using incinerators as a disposal option, overall the medical waste remains a problem for Azerbaijan. There were no changes identified in the practice of the State-owned health sector.