

UN Economic Commission for Europe

Environmental Performance Reviews

*EPR of Moldova:
Report on Follow-up*



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OVERALL ASSESSMENT

The review mission within the Environmental Performance Review (EPR) of Moldova took place in May 1997. The ECE Committee on Environmental Policy held the corresponding Peer Review on 16 March 1998, during which the EPR recommendations were amended and adopted. The Ministry of Environment of Moldova translated the recommendations and circulated them in the Romanian language in May of the same year, while the full report was distributed in the national language in September of 1999. The EPR Team of UNECE, together with the Moldovan Ministry of Environment and Territorial Development, organized the discussion on follow-up to the EPR recommendations in Chisinau, on 10 and 11 February 2000.

Moldova has experienced a difficult economic period between May 1997 and February 2000. Owing to the ongoing severe depression, environmental managers remain impressed – perhaps over-impressed – by the absence of substantial funds that are made available from the national and local budgets, or that are actually forthcoming from the different environmental charges and channelled to the environmental funds at district and national levels. The absence of satisfactory funding continues to divert resources primarily to legislative activities, to the drafting of plans and programmes, and to institutional reshuffling. At the same time, the characteristics of these activities very often remain fundamentally unchanged as compared to previous practices – a circumstance that additionally inhibits enforcement. The clearest example of this general feature is the widespread neglect of the need for early costing of envisaged environmental protection measures. Modern comprehensive cost frames do not appear to be well-known by ministerial experts – indeed, they may not even exist. As a result, comparisons between costs of individual measures and available funds – or potentially available funds, if e.g. the full payment of environmental charges were enforced – cannot be made, with obvious consequences for priority setting in the Ministry, in Government, or in Parliament.

The EPR recommendation that found promptest implementation is the elevation of the previous State Directorate responsible for environmental management to the level of Ministry. In fact, the Ministry of Environment was created shortly after the EPR Peer Review, and the corresponding recommendation that had been made by the Committee on Environmental Policy has been instrumental to this creation. Since then, the assignments of the Ministry have been extended through the addition of the responsibility for territorial planning in the Ministry of Environment and Territorial Development, in early 2000. A number of other EPR recommendations were also implemented, primarily because they constituted encouragement for proposals that were already in discussion nationally at the time of the EPR Review Mission.

Noteworthy improvements occurred in the framework for local (district) administration, where sufficient general budgetary authority now seems to be in place, and where the insistence of the Ministry of Environment has helped to establish units for environmental protection. Some progress has also occurred at programmatic levels, notably regarding the preparation of a waste management strategy, the elaboration of a biodiversity strategy in a joint exercise between all concerned administrations, and the advancement of a strategy for sustainable development. Also, the generally maintained activities of the Environmental Inspectorate, as well as of some parts of monitoring – especially that in the responsibility of the Ministry of Health – can be considered successes.

The late distribution of the full EPR report in the Romanian language precludes a complete assessment of its effects at this time, as many environmental managers have only been able to take note of it in the recent past. Some of the recommendations contained in the EPR report have thus been developed and started to be implemented independently of the EPR programme. It seems that the main use of the English version of the report was that of a reference book for both environmental data and comprehensive statements in individual areas, where such statements had not hitherto been available. The chapters on international cooperation, environmental concerns in transport and environmental health were mentioned in this respect. In this situation, it can be hoped that the EPR report will be used fully in the ongoing transition process of environmental management in the country. On the basis of the follow-up discussions in February 2000, it seems that the potential of the report in assisting in capacity building – first and foremost in the development of economics of environmental protection – in the Ministry of Environment and Territorial Development is not fully exhausted. The same could be said with regard to both organizational and procedural routines in intersectoral cooperation and coordination. Finally, it would also be considerable progress, if existing legal instruments could be systematically screened for internal consistency so as to obviate needs for their frequent revision.

PART ONE: THE CONDITIONS OF ENVIRONMENTAL POLICY AND MANAGEMENT

Chapter 1: Legislative and institutional framework

GENERAL TENDENCY

The drafting of new laws, revisions of existing legal instruments, the preparation of general policy programmes and the revision of institutional frameworks and responsibilities constitute the bulk of ongoing work. Revisions of legal instruments help to eliminate or reduce contradictions in past provisions, but a systematic search for and identification of inconsistencies is felt to be beyond the possibilities of resources available to the Ministry of Justice. Policy programmes are not necessarily binding and specific, as funds are not available. Their main function appears to be that they help in clarifying options and making priority choices more transparent. A breakthrough has occurred with regard to local environmental management. Reorganization of public administration has led to the creation of districts, which henceforth enjoy adequate authority in determining both their revenues and their expenditures. Also, units for environmental protection exist in all districts, so that all mechanisms necessary at this time are in place to undertake environmental management once funds are available. The systematic search for financing possibilities has started.

RECOMMENDATION 1.1:

The National Strategic Environmental Plan should be entirely overhauled in order to provide an integrated programme of linked and phased activities which can easily be put into operation by ministries and departments in their respective sectors. Specific targeted policies should be meshed with current sectoral actions.

RECOMMENDATION 1.2:

Lawmakers should focus on reviewing existing environmental laws to identify overlap, contradictions and gaps amongst them all; amendments should be proposed accordingly.

The development of a comprehensive environmental policy is planned in 2000, with wide cooperation of other ministries. The detailed procedures have not yet been determined. Also in 2000, the first update of the NEAP will occur. Both projects will start in the second quarter, once the report on implementation of the last NEAP is completed.

In the Strategic Orientations of the Social and Economic Development of the Republic of Moldova till the year 2005, adopted by the Government on 6 November 1998, the Sustainable Development of the country was for the first time included as one of the top priorities. The first Strategy for Sustainable Development was prepared by a UNDP sponsored expert group. The Strategy was published on 7 February 2000.

Environmental requirements have been integrated in sectoral policies, e.g., the Programme of Sustainable Development of Agriculture, the Privatisation Programme, industrial policy, and the Concept of Energy Development.

No substantial changes have occurred, for reasons of insufficiency of staff resources. The strategy to deal with this problem is to wait with its solution until revisions of laws have to be undertaken anyhow.

RECOMMENDATION 1.3:

The DEP should be raised to the level of ministry as a result of the necessary restructuring and integration of governmental decision-making and management in the areas of environment, use of natural resources and, possibly, physical planning.

In May 1998 the Ministry of Environment was created, replacing the former Department for Environmental Protection. In early 2000, the Ministry of Environment and Territorial Development was constituted, including the physical planning authorities. A proposal to include also management of the use of natural resources in the assignments for the new ministry was made but not accepted.

RECOMMENDATION 1.4:

A national steering committee for sustainable development should be created with broad governmental and non-governmental participation. This committee should also ensure effective co-ordination and implementation of environmental policies across the sectors.

The recent completion of the Strategy for Sustainable Development may lead to further developments. The implementation of the National Sustainable Development Strategy (Moldova 21) in the second half of the year 2000 foresees the creation of the National Committee for Sustainable Development. The form of this creation has not yet been decided.

RECOMMENDATION 1.5:

The responsibilities of local authorities regarding environmental management should be reviewed, clarified and strengthened and the necessary resources allocated accordingly.

The Law on local public administration (adopted on 6 November 1998) regulates the competence of the local authorities in the field of environmental protection.

RECOMMENDATION 1.6:

Environmental policies should be formulated, with authoritative support, at the highest government level to direct and co-ordinate the activities of the ministries, departments and agencies involved in agriculture, forestry, water and land use.

RECOMMENDATION 1.7:

Capacity-building activities should be implemented in the "non-environmental" agencies to sensitise senior decision-makers to environmental concerns and to train operational staff in appropriate environmental issues, approaches and techniques. Financial assistance for environmental capacity building should benefit not only bodies involved in environmental issues at the national level, but also local governments and the environmental NGO community.

RECOMMENDATION 1.8:

Revised procedures of public involvement should include:

- *Announcing the commencement of EEE/EIE processes in the local press;*
- *Inviting individuals, organisations and communities to submit written comments and participate in public meetings relating to (i) identifying the issues to be considered in the EEE/EIE investigations; (ii) the contents of EEE/EIE reports;*
- *Requiring all EEE/EIE reports to have non-technical summaries;*
- *Placing copies of reports in local libraries; and*
- *Specifying rules governing the conduct of public meetings and the methods by which the results are conveyed to the proponent and other decision-makers and how they will be used in decision-making.*

Governmental Decisions of January and February 2000 include general policy goals, as well as the main functions and structure of the new Ministry of Environment and Territorial Development, and a programme of actions for the year 2000.

In the second half of 1999, three National Workshops on the Role of the Local Authorities in Environmental Protection, project preparation at local level, local ecological funds and local transboundary cooperation were held. A Guide for the local authorities on environmental protection was published. On the insistence of the Ministry of Environment, sections dealing with environmental protection are now established at all districts. On the whole, a modern framework for environmental protection at local, i.e. district level was established, giving districts sufficient budgetary authority in pursuit of their objectives, both with regard to their revenues and their expenditures.

From April 1998 to September 1999, a number of workshops and meetings were held, attended by different ministries and experts, research workers and NGO representatives. The First meeting of the Signatories of the Aarhus Convention, 19-21 April, Chisinau, about the involvement of NGOs and public participation in the decision-making process and environmental actions was held in Chisinau (19-21 April 1999).

The Regulation on the involvement of the public in the process of the preparation and adoption of the decisions in the field of environment was approved in February 2000. It is part of the implementation of the Aarhus Convention. The recommendations concerning the EEE/EIE will be implemented together with other measures, included in the Law on the changes of the Law on SEE and EIE, submitted to the Government. The first two and the fifth of the recommended procedures are included in the draft law. The third and fourth are not, but a procedure similar to the fourth is in place already. The draft law might be completed in time for submission to Parliament at the session of spring 2000.

RECOMMENDATION 1.9:

The instrument of environmental impact assessment should be more systematically used at all levels of government: national, regional and local. The official attitude to public participation in EIA projects should take into account the high value of such participation, as demonstrated in all European countries.

EIA was carried out for all projects indicated in the Law on SEE and EIE, at both the national and the district level.

Chapter 2: *Integration of environmental and economic*

GENERAL TENDENCY

Many economic aspects of environmental protection still received insufficient attention, and it is difficult to predict substantial changes in this respect. The realistic calculation of the actual costs of environmental services and the actual use of earmarked payments for environmental protection appear to be the most prominent difficulties. Similarly, the enforcement of environmental payments that are foreseen by the law is not generalized (primarily limited to the capital). Providers of environmental services seem to use non-transparent practices that would help them to maintain the services at some level in the absence of full payments for use of the services. The ubiquitous need for financial means is often accompanied by the conviction that only foreign assistance can help improve the situation. It appears to be difficult to find approval in the legislating process or in practice for all measures that might lead to additional payments at the enterprise level (environmental insurance, liabilities in the privatization process, indexation of charge and tax rates for inflation, enforcement of fines for violations of environmental regulations).

RECOMMENDATION 2.1:

The scope, sources of finance and purposes of the national and local environmental funds should be reconsidered between all levels of administration involved and clearly delimited. Additional funds might be forthcoming for environmental protection, if percentages of economic aggregates like GNP were earmarked for environmental protection in national budgets. The strengthening of environmental funds operations should be extended also to training for local staff to manage local funds.

The Regulation on the Ecological Funds was approved by the Government (21.09.1998) as well as the Regulation on the Administrative Council of the Ecological Funds and the Regulation on the Ecological-Economic Services of the territorial structures of the Ministry of Environment (05.11.1998). The Guide on the Procedures and Mechanisms of the Functioning of the Ecological Funds was prepared and published with the support of UNDP. Two workshops on the organisation and procedures of the ecological funds for the Directors of the Zone Ecological Agencies were held in 1999, as were other regional workshops on economic mechanisms of environmental protection and on ecological funds for the Ecological Agencies, local authorities and NGOs. While these measures are adequate, local environmental funds are practically without importance, except for Chisinau, where it attains an annual volume of an order of magnitude of US\$ 20,000. The annual volumes of the few other local funds range between US\$ 50 and US\$ 3,500 in 1999. The volume of the national fund is around US\$ 350,000 in 1999. The main source of income of the national fund is a petrol import duty of 0.5 per cent on unleaded petrol, and of 1 per cent on leaded petrol. The only significant source of income for local funds is pollution charges, if they are actually levied. Of these, 70 per cent remain in the local funds, while 30 per cent are paid into the national fund. The national fund finances also local projects.

RECOMMENDATION 2.2:

Project assessment and monitoring of project implementation should be part of a transparent administration of the National Environmental Fund. Financial analysis should be integrated with environmental audit, impact assessment, and the work of the inspectorates. Successful experiences in managing environmental funds in other countries in transition should be retained.

The secretariat of the Administrative Council of the National Ecological Fund was appointed in December 1998. The secretariat evaluates projects through substantive experts prior to funding, assesses and monitors them. The Eco Fund Project for the transfer of Poland's experience in the field of the ecological funds is going on.

RECOMMENDATION 2.3:

The IPPC Directive of the EU should constitute a long-term target for pollution prevention and control. It should be included in the Partnership and Cooperation Agreement.

The Partnership and Co-operation Agreement is in force since July 1998. Its Article 61 relates to the control and prevention of environmental pollution, including transboundary aspects. A first project on the approximation of national legislation in the field of environment (water) to EU Directives was implemented in early 1999, but the process of familiarization with EU legislation and practices is only just starting. The process includes consideration of the IPPC Directive.

RECOMMENDATION 2.4:

Fines for environmental pollution should be indexed to quarterly inflation figures (CPI) as published by the Department for Statistics.

The Ministry of Economy proposed indexation of charges and fines starting with the current year. A decision on the initiative has not yet been taken.

RECOMMENDATION 2.5:

Environmental liability issues should be included permanently in privatisation laws, requiring an adaptation of the resources of the legal expertise of the DEP.

The need for this recommendation is not felt.

RECOMMENDATION 2.6:

An initiative by a competent authority to promote the development of insurance schemes against environmental risks could possibly contribute to improving the handling of liability issues for environmental damage in an industrial context.

A draft Law on environmental insurance has been prepared, co-ordinated with the interested ministries and approved at the Collegium of the Ministry of Environment. It was submitted to the Government in 1999. Promulgation of the law is doubtful due to hesitation in Parliament to create further financial obligations for enterprises.

RECOMMENDATION 2.7:

A method should be implemented that prevents real revenues from the water tax from falling due to inflation.

The Ministry of Economy proposed indexation of charges and fines starting with the current year. A decision on the initiative has not yet been taken.

Chapter 3: International cooperation

GENERAL TENDENCY

A comprehensive approach to international cooperation has not yet been forthcoming, perhaps as a result of pressing funding problems. Moldova remains very willing to integrate its environmental policy into wider international regimes, and is active in the ratification of international conventions. At the same time, obligations from the ratified conventions cannot always be fulfilled with the available funds. It can be expected that the growing interest in approaching the European Union will lead to a consistent and general policy for international cooperation with regard to both environmental protection and territorial development.

RECOMMENDATION 3.1:

DEP capacities for project management, including co-operation with international funding partners, need strengthening. Among the necessary remedial measures, staff should receive language training, as well as intensive training in substantive aspects of environmental policy, management and enforcement.

During the implementation of the UNDP project "Building capacity for the implementation of the NEAP in Moldova" the evaluation of training needs was made and the Training Programme was made (languages and environmental management are included). Actual training focused on project preparation, with funding from UNDP and TACIS. A special unit for technical assistance was created in the Division of Environmental Policy of the Ministry of Environment and Territorial Development.

RECOMMENDATION 3.2:

The role and resources of the National Commission for the Implementation of International Environmental Conventions should be strengthened.

The members of the National Commission are appointed through a Presidential Decree, containing both their names and their functions. Any change gives rise to a revision of the Presidential Decree, before the Commission can meet. An active role of the Commission can therefore only be expected, if the nomination procedure is made easier, which the Ministry intends to do.

RECOMMENDATION 3.3:

The Basel Convention should be ratified, related national legislation established and specific training for the staff organised. Likewise, the ratification of the Danube Convention and other relevant intergovernmental treaties should be promoted.

Ratified:

Basel Convention – March 1998;

Danube Convention – March 1999;

Aarhus Convention – April 1999

Ramsar Convention – May 1999.

No particular training exercises have been undertaken for the Basel Convention.

RECOMMENDATION 3.4:

The responsibility for the implementation of the Espoo Convention should be assigned to the institution that assesses environmental impacts.

The discussion about the implementation of this recommendation seems to be starting.

RECOMMENDATION 3.5:

To control transboundary air pollution, additional air monitoring stations should be installed on the borders with Ukraine and northern Romania. "Hidrometeo" should be fully equipped for the analysis of all samples obtained from transboundary air pollution monitoring.

The needs for financial assistance for the required three stations and their equipment have been evaluated by Hidrometeo to US\$ 1.5 million. Hidrometeo is looking for technical assistance from international financial institutions for this purpose. Data reporting under the LRTAP Convention remains impossible until the investment is made.

PART TWO: MANAGEMENT OF POLLUTION AND NATURAL RESOURCES

Chapter 4: Air management

GENERAL TENDENCY

The Law on Air Protection starts to be complemented with the necessary implementing regulations and measures. It was decided to approach EU practices, initially through the creation of a special commission of research institutes. It can be expected that Moldova is now engaging in a serious adaptation of ambient air quality standards to general European practices and the requirements of a market economy. The review of the air emission inventory is starting with a study of CORINAIR practices. Air pollution charges continue to be primarily enforced in Chisinau, but timid attempts are developing also in other districts. Small improvements have been implemented in air monitoring systems, but a comprehensive revision as well as reliable maintenance of monitoring remain pending.

RECOMMENDATION 4.1:

The recent adoption of the Law on Air Protection requires the preparation of implementing regulations that should benefit from contemporary European practices and experience, in particular as regards standards for ambient air quality and deposition levels.

The Regulation on parkings and garages is under preparation, statistical reports on air pollution are being prepared, and a chapter on air protection was contributed to the new Guide for State ecological control. Development of further regulations stipulated by the new law will begin in the year 2000.

RECOMMENDATION 4.2:

The administrative authority for setting environmental standards relevant for air management should be streamlined in such a way that it clarifies responsibilities and enforces appropriate co-ordination mechanisms between the sectoral interests involved. The new set of standards should become the basis for strict enforcement in the very near future.

The Institute of Ecology created a special commission for the harmonization of Moldovan standards with EU standards. This commission is involved in the revision of standards for ambient air quality and deposition levels. No new enforcement provisions are being developed.

RECOMMENDATION 4.3:

The future development of the energy economy should be steered in such a way that the use of cleaner fuels and of cleaner technologies is promoted through the introduction and application of market-oriented instruments.

The newly developed Concept of Energy Development and the draft Law on Energy Conservation correspond to part of this recommendation. The Air Pollution Prevention Programme for Road Transport promotes the introduction of unleaded petrol. The development of a general policy for the introduction of cleaner technologies is only at its beginning, and the introduction and application of market oriented instruments in this regard would have to wait until its adoption.

RECOMMENDATION 4.4:

In accordance with the recently adopted Law on Payments for Environmental Pollution, the charges and fines used to combat air pollution should be enforced without delay in the country as a whole.

Small changes have occurred so far.

RECOMMENDATION 4.5:

The existing inventory, monitoring and reporting systems for air pollution should be expanded with regard to the most important air pollutants.

The need for this change is recognized, but nothing has been done so far. A review of CORINAIR methodology is at an early stage.

RECOMMENDATION 4.6:

The gradual implementation of a comprehensive nation-wide monitoring programme should begin with the drawing-up of a programme of required investments and lead to the installation of continuous measuring and sampling devices, especially in urban areas. See also Recommendations 2.3 and 2.4.

Monitoring of transboundary pollution has ceased in practice. Nationally, a cost proposal for an integrated monitoring system exists. The National Ecological Fund approved small projects for starting the implementation of changes in monitoring activities.

RECOMMENDATION 4.7:

In the immediate future, air management authorities should focus on the control of: (a) emissions from road vehicles, preferably in accordance with relevant UNECE regulations; and (b) emissions of nitrogen and particulates in human settlements. Moldova should consider acceding to the 1994 Sulphur Protocol to the Convention on Long-range Transboundary Air Pollution.

The Air Pollution Prevention Programme from road transport was prepared by the Environmental Inspectorate and submitted a first time to Government in June 1999. It was returned for changes and will be resubmitted this year.

Chapter 5: Water management

GENERAL TENDENCY

The monitoring of drinking-water quality (in the hands of the Ministry of Health) and the legal framework for drinking-water have improved. However, actual supply management is relatively unchanged. Water metering progresses slowly, and the official recovery rate of water bills to users is relatively low (about 50 per cent). Water losses in distribution remain exorbitant (average of at least 40 per cent, locally up to 80 per cent), and systematize investments in the supply facilities are not in sight. Nevertheless, some projects are implemented in areas of priority for water supply, in co-financing agreements between Moldova and foreign partners.

RECOMMENDATION 5.1:

The existing water supply programmes should be updated, alternative sources of supply should be included, and the involvement of local authorities should be increased.

The recommendation as such is not being followed up directly. However, two investment projects in water supply found funding (in Chisinau, a project of US\$ 41 million is jointly funded with the EBRD, and a project in Gagauzia totalling US\$ 35 million is jointly funded with Turkey). Also, the Social Investment Fund started to fund projects for water supply.

RECOMMENDATION 5.2:

The assessment of the costs of water abstraction and supply, wastewater collection, treatment and discharge should be seen as a priority for Moldova's water resource management. It is essential for revising the national water tariff policy. The assessment should include all economic costs related to the operation of all relevant technical installations, their maintenance and their replacement.

Calculations of the costs of water abstraction, supply, wastewater collection and treatment appear to be unchanged compared to the time of the EPR Review Mission. Costing thus continues to exclude items like replacement cost for infrastructure etc. Water tariffs are heavily influenced by social considerations.

RECOMMENDATION 5.3:

As a precondition for the implementation of effective co-operation between all administrations involved, water management should be represented at ministerial level as part of overall environmental management. Separating policy authority from actual exploitation activities is advisable. River basin administrative units should be created for each basin. Co-operation should be extended to NGOs in the context of EIEs. See also Recommendation 1.3.

The consideration of this recommendation seems to be ongoing. The proposal by the Ministry of Environment to include natural resource management in the newly created Ministry of Environment and Territorial Development has been refused recently. The question of the institutional restructuring of Moldovan Government in this respect remains under the influence of a large number of questions. A draft of a Government Decision on the restructuring of the Apa-Canal State Concern and its subordination to the Ministry of Environment has been developed.

RECOMMENDATION 5.4:

The necessary streamlining of the monitoring system between the different partners should, among other results, lead to more reliable and more complete monitoring data.

A draft new Regulation on ecological monitoring (1998) was elaborated. It sets the basic structure of monitoring, determines participating institutions and specifies types of data to be prepared. One of its main goals is to redistribute responsibilities for different monitoring activities and the corresponding data sets. There are not yet practical results.

RECOMMENDATION 5.5:

The enforcement of bilateral water treaties with neighbouring countries should lead to common monitoring systems, specifications for the use of common water resources during droughts, as well as for detailed limit values for the water parameters to be aimed at by the partners in the treaties.

The project "Monitoring of the transboundary waters of Dniester and Prut rivers" is relevant to the objectives of this recommendation. It is implemented together with Romania and Ukraine and is funded by the NATO Science for Peace Programme.

RECOMMENDATION 5.6:

The supply of safe drinking water to the rural population should be ensured with the help of a legal and administrative (including budgetary) framework that enables local authorities to control and enforce effectively all relevant water quality standards and the implementation of related water policies. See also Recommendation 1.5 and Recommendations 11.3, 11.4 and 11.5.

The legal framework was completed by the approval of the Law on Drinking Water (1999), and the administrative framework will be modified with changes in the Apa-Canal Concern and local authority structures.

RECOMMENDATION 5.7:

The water management authorities should avoid all unnecessary delays in the introduction of appropriate metering systems as a prerequisite for the recovery of water costs. See also recommendation 9.5.

The introduction of the metering system started in 1998. In Chisinau, up to 90 per cent of residential buildings are presently equipped with water meters, which are installed also in 40 per cent of the apartments. The national average of equipped apartments is 30 per cent.

Chapter 6: *Biodiversity management*

GENERAL TENDENCY

The gradual development of a biodiversity strategy has been the main achievement of the recent past. It was based on an analysis of past practices and involved the major actors. It constitutes a compromise between the different interests. The improvement of the legal and organizational basis for management of protected areas also improved, but practical results are awaited. The integration of nature management with territorial planning appears to be one task for the near future at the conceptual level, and the newly created Ministry of Environment and Territorial Planning provides a convenient institutional basis for such work.

RECOMMENDATION 6.1:

The envisaged comprehensive national biodiversity strategy should be finalised as a matter of priority. It should be supplemented with an action plan including specific projects, co-ordinated with all other relevant sectoral strategies, notably those governing the development of sustainable agriculture.

The biodiversity report was finished and is currently in translation into English. The Biodiversity Strategy was developed, essentially in 1999, with a series of workshops and working groups, with wide participation from local and national government, scientists, the public and Parliament. The Strategy will be published on 18 February, at a further workshop. It notably includes a section on agriculture, which meets with the approval of the Ministry of Agriculture. Also Moldsilva is in agreement with the forest part. The Action Plan is expected to be finalised after the publication of the Strategy, but some of its components are already in implementation.

RECOMMENDATION 6.2:

Competing claims on land should be co-ordinated in the context of territorial planning at all levels of government (national, regional and local). The co-ordination should involve public participation. It may result in the identification of areas to be excluded from the privatisation process in accordance with the national biodiversity strategy.

RECOMMENDATION 6.3:

A long-term programme should be developed to define (explain and justify) what natural habitats and ecosystem will need future protection, under what regimes and in what specific geographic zones. The planning at an early stage of a future ecological network would facilitate the setting of priorities. Environmental bilateral agreements with neighbouring countries (Romania and Ukraine) should include the protection of transboundary aquatic habitats, and their ecosystems and species; the continuity of transboundary ecological corridors/networks; and agreement on objectives and harmonised programmes for the management of protected transboundary zones.

RECOMMENDATION 6.4:

The Law on the Protection of Riparian Zones (1995) should be enforced, starting in priority regions, i.e. where vegetation cover is poor and water ecosystems and resources are threatened. Actions should involve the national as well as the local level and could include:

- *Informing of local and regional levels of their tasks,*
- *Requesting municipalities to identify problems on their territory, priorities and resources needed,*
- *Requesting municipalities to issue and enforce the necessary municipal decrees, and*
- *Ensuring that the necessary resources (from national and local sources) are made available at the local level to fulfil these tasks.*

A land use planning scheme does not exist. The creation of the new farms and distribution of land is co-ordinated by the National Programme "Land", which will last till the spring 2000. The distribution of the land is co-ordinated, and does not include the existing protected areas. It is planned to buy land back from owners, if the creation of future protected areas makes this necessary. The integration of environmental management and territorial development in a single ministry is expected to facilitate the solution of land use conflicts in the future.

These actions are included in the Biodiversity Strategy, in the preparation of which a special working group dealt with protected areas. It discussed the establishment of an ecological network as part of the European network. The envisaged national network relies much on connecting corridors along smaller rivers. All related tasks are expected to benefit from the recent merger of environmental management with territorial development in one ministry. Connections are being prepared with Ukraine in the areas of the lower Danube and the lower Dniestr. The Ramsar Convention was recently ratified. Parliament adopted a Decision on a bilateral agreement with Ukraine on Biodiversity Conservation.

No substantial development has occurred. The law is partly through existing sanctions of economic activities, as they are practiced.

RECOMMENDATION 6.5:

A separation of policy authority and actual exploitation of forest is advisable.

It seems that the implementation of this recommendation starts to be seriously considered. A related draft decision on the reform of Moldsilva was submitted to Government. It includes the transfer of policy formulation and co-ordination in forest management to the Ministry of Environment.

RECOMMENDATION 6.6:

A national strategic forest action plan should be developed as a basis for the management of the forest resources as a whole. It should take relevant aspects of the Pan-European Ecological Network and the Pan-European Strategy on Biodiversity and Landscape Protection into account. The action plan should address the question of forest management regimes and should be fully co-ordinated between the national government (i.e. Moldsilva) and local authorities. A programme for the extension of forest area should be included in the strategic forest action plan.

The Programme on Sustainable Development of Forests is developed with the support of the Ministry of Environment of Finland and cofunded by Finland, Moldsilva and the Environmental Fund of Moldova. It includes the substance of this recommendation. The Programme is currently in coordination with other ministries and Parliament. The Programme includes the strategic goal of an increase of the national forest area.

RECOMMENDATION 6.7:

All laws prohibiting the cutting of trees, catching of fish or hunting should be properly enforced.

The equipment and operations of the Environmental Inspectorate have not been modified substantially since the EPR Review Mission, and the level of enforcement is basically unchanged.

Chapter 7: Waste management and cleaner production

GENERAL TENDENCY

The development of the National Waste Management Programme constitutes the most important progress in this field. It includes options for reduction of waste generation, waste treatment and disposal, and emphasises the importance of modern waste management objectives, like cleaner production, reduction of generation at the source, and recycling. The programme does not, on the other hand, specify particular actions, which would be fully costed and developed. Also, the programme is waiting for approval by the Government at large. The Ministry of Environment and Territorial Planning would in the meantime assist, to the extent possible, any company interested in developing recycling activities in Moldova. A recently established centre for prevention of industrial pollution (cleaner production centre) is gradually developing activities, in cooperation with both Norwegian and Russian institutions. A pilot project in Chisinau on municipal waste separation prior to collection was inconclusive, and the alternative of a municipal waste separation plant is being considered.

RECOMMENDATION 7.1:

The necessary translation of broadly formulated general policy objectives into concrete action plans should start from NEAP. The totality of action plans should be comprehensive to the extent that it constitutes a waste management strategy. It should result in enforceable actions and improved legal instruments, which should explicitly replace all existing action plans in the respective areas of concern.

The National Waste Management Programme (NWMP) was submitted to Government for approval in December 1999. It was prepared by the Ministry of Environment, in cooperation with a large number of relevant institutions. Cleaner production, minimization of waste at the source, separate collection and recycling-reuse are major orientations for the programme. At present, companies are being sought that are ready to engage in recycling activities. Such companies will receive support from the Ministry of Environment and Territorial Planning.

RECOMMENDATION 7.2:

A plan is required for the provision of resources for the acquisition of waste treatment technologies; training of staff at all levels of waste management, and the development of an adequate information system. All three aspects are expensive. The plan should therefore take into account the fact that successful waste management will increasingly become an instrument for the achievement of export growth.

The plan does not exist and is not under development.

RECOMMENDATION 7.3:

Moldova should ratify the European Agreement concerning the International Carriage of Dangerous Goods by Roads (ADR). An implementation programme, including an analysis of costs and training for the staff involved in its implementation, should be established. See also Recommendation 3.2.

The Agreement was ratified in June 1998. The corresponding regulations are currently under development in the Ministry of Transport.

RECOMMENDATION 7.4:

Technological change for the purposes of cleaner production should be promoted through the creation of a centre for cleaner production, including the preparation of the national programme for the phase-out of ODS. The centre should be jointly supported by the Government and the representative industrial organisations. It should be responsible for the promotion of the ISO 14000 series among Moldovan enterprises.

ISO 14000 standards were declared National Standards and published accordingly. The Programme of Action of the Government foresees their implementation by the Department of Standards in 20 enterprises within two years. The Ministry of Environment undertook an information campaign inside the Government on the need for cleaner technologies. A cleaner production centre of 3 staff was created recently as an NGO. It co-operates with Russia and Norway. The centre organizes workshops, but other activities are expected. A special unit was created for the management of an ozone project, with UNDP funding from the Montreal Protocol Trust Fund as well as with UNEP assistance. The development of a programme for ODS phase-out is among its assignments.

RECOMMENDATION 7.5:

The relevant fiscal instruments, particularly profit taxes and import duties, should be used to encourage cleaner production by removing any disincentive to the installation of cleaner technologies, and by introducing appropriate depreciation schemes.

Not implemented.

RECOMMENDATION 7.6:

The development of an action plan to reduce the volume of municipal waste for final disposal, destruction (with energy recovery where applicable) or reuse should be started without delay. The first step should be the drawing-up of a study on the installation of treatment facilities, including their costs, the possibility and costs of separate collection and pre-treatment of different types of municipal waste, the need and possible success of public education programmes for waste separation in co-operation with NGOs, and the possible scope of markets for recycled materials.

The separate collection of the municipal wastes started in Chisinau in 1998. The experiences from the project were mixed. Alternative projects are under study, like the construction of a separation plant for municipal wastes. The National Waste Management Programme includes strategic directions for future management of municipal wastes. Options are listed regarding possible solutions, but their cost has not been calculated individually.

RECOMMENDATION 7.7:

An inventory should be established of industrial wastes of high potential hazard, which are either stored on industrial premises or were (or continue to be) dumped on landfill sites, including information on the site where they might have been discharged, whether legally or illegally. The inventory should be the basis for urgent clean up or decommissioning, as the case may be.

This recommendation is not considered a priority.

PART THREE: ECONOMIC AND SECTORAL INTEGRATION

Chapter 8: Environmental concerns in agriculture

GENERAL TENDENCY

The virtual completion of the privatization of agricultural land, and the development of a Programme for Sustainable Development of Agriculture were the most remarkable conceptual activities during the last two years. By contrast, the development of law on soil conservation is still at an early stage, but the finishing land privatization process may be expected to accelerate its elaboration. At a more practical level, the installation of centres for information and training of farmers (in practice the beginning of a full-fledged extension service) has succeeded well, and the activities of these centres are increasing as they approach their planned staffing. The staff of the centres are not experts in environmental issues, but funds are available for hiring environmental experts in the context of special training projects. Decisions have not yet been taken on how to recognize the Programme for Sustainable Development of Agriculture in the activities of the centres.

RECOMMENDATION 8.1:

A policy programme aiming at sustainable agriculture should be developed as a matter of top priority. The programme should deal with soil conservation as one main focus. It should be implemented simultaneously with agrarian reform, with measures that focus initially on research, training and the creation of extension and technical advisory services. It is also important to remove obstacles to the full and rapid implementation of land privatisation.

The Programme of Sustainable Development of Agriculture was developed (1998), including these recommendations, and some activities have started to implement them, because, by the end of 1999, 95 per cent of agricultural land was privatised. 15 centres for information and training of farmers were created with TACIS support. They count 75 staff at present, who do not have environmental expertise, but outside expertise are hired for environmental issues dealt with at workshops. Sustainability training does not exist, but see follow-up to Recommendation 8.5. A guide for farmers was published with UNDP assistance. Training workshops are planned in the course of the year 2000.

RECOMMENDATION 8.2:

Programmes to control the introduction of foreign species should be developed.

The need for this recommendation is doubted in Moldova. Existing procedures for the introduction of foreign plant and animal species are deemed sufficient.

RECOMMENDATION 8.3:

A comprehensive system for territorial planning should be introduced at all levels of government (local, regional, national). It should be based on: (a) the need to respect environmental objectives in land-use decisions, and (b) the requirement to provide the necessary infrastructure and communal services for all types of land use. See also Recommendation 6.2.

A Programme for the development of a national territorial planning scheme was included in the previous Governmental action plan, and the elaboration of the National Territorial Development Plan started in 1999, for completion in 2002. The development of urban plans started on the basis of the Law on Urbanisation and Territorial Planning Principles, which was adopted in 1996. They will also be finalised in 2002. The recent restructuring of the Government, in which environmental management and territorial development were combined under one ministry, may have an impact on the various processes.

RECOMMENDATION 8.4:

Soil conservation, as an aim in itself should be the subject of special legislation. It should concentrate on vulnerable soils and protect the endemic xerophyte forest chernozem. Soil conserving measures should be envisaged for all agricultural practices (crop patterns, land use, vegetation cover, machinery used, production techniques, etc.). Economic instruments should be developed and used to make soil conservation economically viable for all types of farm management.

The Law on Soil Conservation is currently being prepared in collaboration between scientific institutes dealing with pedology, agrochemicals, hydrology, land register, etc. It is expected that their draft can enter the Governmental consultation procedure at the end of the year 2000.

RECOMMENDATION 8.5:

Farm management practices should systematically be aligned with soil conservation targets, primarily by changing crop patterns and production techniques, and by promoting organic farming methods.

The implementation of this recommendation is foreseen in the form of an extension of the Sustainable Development for Agriculture programme, in the form of training with TACIS support. The promotion of organic farming methods is under development.

RECOMMENDATION 8.6:

A programme for the reduction of water pollution from agricultural sources should be developed and implemented. It should introduce water protection objectives into the designation of agricultural lands (e.g. riverbanks), the suitability of water for use in irrigation, and the handling and application of agro-chemicals. The programme should also provide effective mechanisms for the dissemination of information on the use of pesticides to all farmers.

Under examination. No special activity exists to inform farmers on the use of pesticides.

RECOMMENDATION 8.7:

The agricultural and environmental information systems should be rapidly adapted to the transition conditions, so that a comprehensive agricultural information system becomes available for decision-making. The funds required in this context could perhaps be mobilised partly through international co-operation projects.

A plan for the development of an agricultural information system exists, as the current system does not produce reliable data. The plan is not being implemented for lack of funds. There are no special provisions for linking the agricultural and the environmental information systems.

Chapter 9: *Environmental concerns in energy*

GENERAL TENDENCY

Progress has been made in the preparation of the legal system for a modern energy system in the country, through the adoption of new electricity and gas laws. The advancing privatisation of energy facilities and the creation of a national agency for energy regulation provide for a much improved institutional structure. On the other hand, the development of a comprehensive approach towards managing the continuing tight energy supply has not been completed, but a law on energy conservation is in the Parliamentary approval process. The current plans for modification of actual energy management do not include demand-side management. Prices are the only economic instrument in use in energy management, but the application of this instrument is severely constrained by social considerations.

RECOMMENDATION 9.1:

The policy for the de-monopolisation of electricity generation, and the electricity and gas acts should be implemented as a matter of priority.

The laws on energy, electricity and on natural gas were approved in 1998. The oil and gas facilities are privatised, as are 60 per cent of the power distribution units. Power plants are in process of tender, their privatisation is expected to be finished in summer 2000.

RECOMMENDATION 9.2:

The envisaged national agency for energy regulation should be created so that it can deal with the full range of tasks entrusted to it. It should have sufficient resources to ensure programme delivery.

The agency was created by Presidential Decree in December 1997. It is partly financed by USAID. The granting of energy production licenses and the establishment of the energy tariffs are its main tasks.

RECOMMENDATION 9.3:

The timely introduction of integrated energy resource planning should be seen as a matter of urgency, calling for the rapid development of appropriate demand-side management techniques and cost-benefit analyses, as well as the training of staff at all levels.

No major development seems to have occurred so far in the traditional energy planning procedures, nor are there signs of substantial envisaged changes.

RECOMMENDATION 9.4:

A programme for energy efficiency and the increased use of renewable forms of energy should be developed and implemented.

An Energy Efficiency Programme was developed in 1998, but it is not yet approved, as it includes the creation of an Energy Conservation Fund, to which there is opposition. The Law on Energy Conservation is in Parliament for approval. It includes provisions for an increased use of renewables, focusing in particular on hydro-power from small rivers, decentralized energy generation from biomass, solar and wind energy.

RECOMMENDATION 9.5:

Initiatives are required to facilitate the creation of national production facilities for energy metering equipment. Administrative procedures and related practical routines for the installation of the required production capacity that could interest joint ventures (particularly between SMEs) should be reviewed to make them as attractive as possible (simplicity of regulations; realistic taxation of profits).

Electricity is metered at each user. Gas is metered in all relevant enterprises, and the introduction of gas meters in households has started. Metering of heat consumption is only starting in Chisinau. There is no problem of supply of meters in Moldova.

RECOMMENDATION 9.6:

A complete and detailed inventory of environmental effects of the production and use of energy should be developed, and lead to an action plan to mitigate the negative effects, including the installation of desulphurization and denitrification equipment at energy plants. The setting of priorities should make use of a general method, in which damages are assessed.

The inventory does not exist. It would heavily depend on the development of supply and use patterns. At present, it is planned to satisfy the needs for primary energy in the long run to 60 per cent from natural gas and local, mainly renewable sources in decentralised systems. The installation of air pollution abatement equipment at power stations has started, but only to a small extent for lack of funds.

RECOMMENDATION 9.7:

The tool kit of economic instruments for the environmental management of the production and use of fuels should be revised and applied, as appropriate. Particular attention needs to be paid to the introduction of instruments that are capable of producing the envisaged results, including possibly tax reductions and/or exemptions for investments that are instrumental in energy savings.

Prices are used as the only economic instrument in this respect.

Chapter 10: *Environmental concerns in transport*

GENERAL TENDENCY

Recent governmental restructuring has weakened the institutional recognition of environmental concerns in transport, by abolishing the corresponding unit and reducing the number of staff affected to the issue. On the other hand, the possibilities for a more efficient environmental control of road vehicles was improved in November 1999, when a road vehicle register was created, together with a new unit responsible for vehicle controls. Nevertheless, the ecological inspectorate remains in charge of environmental road-side controls of vehicles assisted by the police, and new units have been created for the purpose. The Ministry of Transport and Communication has started the elaboration of a Concept for Transport Development, which will become the frame for support to public transport schemes and extension of inland waterways transport. Changes in fuel standards and import duties for cars are expected to occur in the process of following up on the recently signed protocol to the LRTAP Convention to abate acidification, eutrophication and ground level ozone.

RECOMMENDATION 10.1:

A working group on sustainable transport development should be established. It should consist of experts, be headed by the Ministry of Transport and involve all relevant public institutions (DEP, Ministry of Finance, Department of Standards, Department of Energy, and others). The group should set relevant objectives for sustainable transport, time schedules for legislative and investment activities, and measures to encourage public participation.

The working group was not created. A concept for general transport development is currently being prepared in the Ministry of Transport and Communication. It is not particularly focusing on sustainable transport.

RECOMMENDATION 10.2:

A master plan for the training of (a) the members of the sustainable transport group, and (b) environmental managers of transport activities, should be developed and implemented.

The number of units and staff dealing with environmental issues in the Ministry of Transport and Communication was recently reduced. The recommendation is not implemented.

RECOMMENDATION 10.3:

The selection of road vehicle standards for imported cars should be reconsidered and possibly adapted to advanced EU legislation.

At present, standards are not adapted to EU legislation, and there is currently no plan to do so.

RECOMMENDATION 10.4:

Fuel standards that are aligned on European practices should be introduced in accordance with a clear programme. The use of unleaded petrol for all cars should be promoted in all possible manners.

A decision of Moldova Standards not to allow the import of leaded petrol, was adopted (conditions are specified). At present, unleaded petrol represents more than 50 per cent of the country's consumption. Petrol stations are suitably equipped. The recently signed Protocol to the LRTAP Convention to Abate Acidification, Eutrophication and Ground-level Ozone will prompt changes in fuel standards.

RECOMMENDATION 10.5:

The full range of economic instruments should be developed to meet environmental objectives. Preferential import duties and other taxation should be levied on road vehicles incorporating advanced technology to reduce air emissions.

Different conditions for imported cars are being introduced, as well as flexible conditions for advanced technology and emission reduced vehicles. The recently signed Protocol to the LRTAP Convention to Abate Acidification, Eutrophication and Ground-level Ozone will also give rise to a modified system of import duties for cars in the sense of the recommendation.

RECOMMENDATION 10.6:

A new system of vehicle emission control under the exclusive authority of the Ministry of Transport should be implemented and enforced.

A Governmental Decision of November 1999 introduced a register of road motor vehicles, as well as a technological centre in transport that is responsible for technical control of vehicles. In addition, special control units were created in the Environmental Inspectorate for roadside control of vehicle emissions, in collaboration with the street police.

RECOMMENDATION 10.7:

A comprehensive policy encouraging the use of public transport and rail goods traffic should be developed and implemented. It should be well co-ordinated with urban development and other forms of spatial planning. The policy should include provisions enabling the licensing institution to control the implementation of environmentally sustainable provisions for transport.

The concept for transport development mentioned in the follow-up to Recommendation 10.1 includes a focus on improvement of public transport.

RECOMMENDATION 10.8:

The economic restructuring of municipal public transport companies, as well as the modernisation of their vehicle fleets, have become top priorities. To avoid major disruptions in public transport systems, provisions for improved market access by competitors of the public companies have to be complemented by the implementation of adequate financial safety provisions for the public companies.

The public transport companies are in the process of privatisation. Practical access conditions to the market for private transport appear to be unchanged as compared to the situation at the time of the EPR Review Mission.

RECOMMENDATION 10.9:

The possible future role of inland waterway transport should be explored.

The concept for transport development mentioned in follow-up to Recommendation 10.1 includes plans for a more pronounced use of inland waterways.

RECOMMENDATION 10.10:

The air emission inventory should be revised for reliability and completeness, making use, to the extent possible, of CORINAIR practices. The implications of this task are such that the producers of environment, transport and energy data should co-operate in it.

Nothing has changed in the practices that were followed at the time of the EPR Review Mission. First, initial steps are being made towards the introduction of CORINAIR practices regarding the air emission inventory.

Chapter 11: Environmental pollution and human health

GENERAL TENDENCY

The Ministry of Health continues to attach substantial importance to questions of environmental health. Staff is specially affected to this work area. The NEHAP was prepared and submitted to Government for approval. Monitoring is not only being maintained, but also revised for better adaptation to environmental health issues (replacing monitored parameters of lesser interest by e.g. pathogens) and extended to new areas like occupational health. Research in priority areas like fluorosis is being undertaken despite the general reduction in research expenditures in the country. A draft law on food product quality was submitted to Parliament in November 1999. It is hoped that the adoption of the law will pave the way for increased food safety.

RECOMMENDATION 11.1:

The drafting of the national environment and health action plan should be finished, taking into account the work already completed under the National Environmental Action Plan. Both plans should be implemented in close co-ordination.

The National Environmental Health Action Plan (NEHAP) was developed, co-ordinated and submitted to the Government for approval (March 1999). The NEHAP was prepared in close collaboration and co-ordination between the Ministries of Health and of Environment.

RECOMMENDATION 11.2: *National capacities should be developed for applied health research, into the quality of the environment and the effects of pollution.*

Concrete actions for capacity building are included in the draft NEHAP. Budgetary allocations to any type of research continue to be cut.

RECOMMENDATION 11.3:

The enforcement of the options of existing programmes for the supply of safe drinking water should be the main management concern once they are selected. It is necessary to reduce the population's exposure to fluoride in drinking water so as to eliminate fluorosis, observed in large parts of the population living in high-risk areas.

While funds are extremely limited, monitoring continues in an acceptable way, at least for priorities. A study on fluorosis was done in 1999. It suffered from insufficient statistics on fluoride in drinking-water. However, a more extended use of surface water for water supply was recommended to the water management authorities.

RECOMMENDATION 11.4:

Improving the microbiological quality of drinking water should be recognised as a top priority. Nitrate pollution is another priority concern.

Improving the microbiological quality of drinking water has been introduced as a top priority in the NEHAP. Enforcement started in monitoring, where additional parameters were included, and surface waters is being monitored particularly for pathogens. Nitrate concentration in drinking water of the rural population is a recognized top priority also, as 70 per cent of drinking-water in rural areas from shallow wells shows nitrate concentrations above standards.

RECOMMENDATION 11.5:

Surface and groundwater should be better protected from contamination by communal sewage and run-off from agricultural land.

A special study of the quality of runoff waters was started. Sampling of rainwater occurs sometimes. The concentrations of petroleum products in surface waters seem to have increased over the last two years.

RECOMMENDATION 11.6:

The air quality monitoring system should be reviewed and modified to better assess the health risks and better control pollution.

The Ministry of Health entertains a programme for air quality monitoring in five cities. The system was revised in 1997. A few parameters were discontinued, while others, mainly in the work environment, were added. The monitoring system meets the requirements of the Ministry of Health under the current circumstances. Health risk evaluations also make use of air quality data obtained from Hidrometeo.

RECOMMENDATION 11.7:

A system for controlling the quality of food consumed by the population should be improved and should include the control of food produced by suppliers without special licences.

A Law on Food Product Quality was submitted to Parliament for approval in November 1999. It clarifies responsibilities for food quality and its control and meets the requirements of the Ministry of Health. Furthermore, a policy programme for cleaner production in the food industry will be prepared by a special committee before the end of March 2000, upon Presidential Decree of December 1999.