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Environment Policy Committee
Working Party on Environmental Performance

**ENVIRONMENTAL PERFORMANCE REVIEW OF THE SLOVAK REPUBLIC
REVISED ASSESSMENT AND RECOMMENDATIONS
FINAL**

This document presents the Assessment and Recommendations of the Environmental Performance Review of the Slovak Republic that were adopted by the Working Party on Environmental Performance on 20 June 2011.

ASSESSMENT AND RECOMMENDATIONS

1. Towards sustainable development

Greening growth

1. Between 2000 and 2008, Slovakia enjoyed the highest rate of growth in the OECD. However, the country was severely hit by the economic downturn, and real GDP declined by almost 5% in 2009. The government adopted three separate packages of anti-crisis measures amounting to 0.4% of GDP in 2009 and an estimated 1% of GDP in 2010. Some of these measures were environment related such as projects to increase energy efficiency. In 2010, driven by exports, the economy recovered at a strong pace, but the budget deficit deteriorated badly and unemployment rose dramatically. The new government aims to reduce the budget deficit from 8% of GDP in 2010 to 3% in 2013.

2. In 2005, the government adopted an Action Plan for Sustainable Development for the period 2005-10. Environment has been further integrated into economic and sectoral strategies, in particular in the national strategic reference framework setting investment priorities supported by the European Union. However, there has been no strong political commitment for environmental policy integration other than to comply with EU requirements. The Environmental Strategy has not been updated and the evaluation of the Action Plan for Sustainable Development was largely formal. Strengthened capacity for economic analysis could provide valuable support for environment-related policy development and implementation.

3. Over the past decade, Slovakia has broadened the use of economic instruments in environmental policy. It has made significant progress in expanding the use of environmentally related taxes by increasing taxes on transport fuels and broadening the energy tax base. In 2009, environmentally related taxes accounted for 6.6% of total tax revenue which, due to the relatively low tax burden in Slovakia, is above the OECD Europe average. However, they were equivalent to 1.9% of GDP, below the OECD Europe average. It is likely that this share has dropped in 2010 due to the lowering of the tax on diesel. Slovakia is one of the few European countries not to tax private car ownership. Vehicles used for commercial purposes are subject to an annual road tax with a legal minimum rate which is not systematically linked to environmental performance. Increased water charges have contributed to more efficient water usage. However, current rates are not sufficient to support environmental infrastructure needs. Taxes and charges are often earmarked for the Environmental Fund and for the Recycling Fund, which may lead to inefficient spending.

4. Environmentally harmful subsidies have been reduced in the agricultural and energy sectors. However, preferential tax treatments offered to energy-intensive industries provide incentives to increase energy consumption. Electricity generation from domestic lignite has been supported to reduce dependency on energy imports and for social reasons, encouraging the use of this relatively more polluting energy source. Public support to rail transport failed to improve the performance and competitiveness of the sector which has contributed to the shift towards road transport. Reforming environmentally-related taxes and environmentally harmful subsidies could contribute to fiscal consolidation.

5. Since its accession to the EU in 2004, Slovakia has increasingly relied on the EU to finance environmental infrastructure. In the 2007-13 programming period, about 16% of the budget for Slovakia

under the cohesion policy, equivalent to EUR 1.8 billion, was devoted to the environment. In addition, about EUR 2 billion was allocated to indirect environmental investment, mostly for rail transport but also for renewables and energy efficiency. This assistance has significantly improved the share of the population with access to environmental services and infrastructure. However, further efforts are needed to achieve the service levels in other EU countries. To this end, Slovakia should do more to attract, absorb and efficiently allocate EU funds for environmental purposes.

6. Belatedly, innovation has emerged on the policy agenda as a potentially important driver of growth and long-term competitiveness. The government's innovation policy (2007) and strategy (2008) established the framework for improving Slovakia's poor innovation performance. However, overall innovation capacity remains weak; strengthening it, for example through more support for higher education and international co-operation on science and technology, is a key prerequisite for boosting eco-innovation. Environmental protection has represented an increasing share of the government R&D budget, growing from 1.3% in 2000 to 2.8% in 2009, slightly above the OECD average. However, much of this goes to traditional environmental areas (air, water, waste) with low potential for inventive activities, rather than to emerging areas that could help boost Slovakia's long-term competitiveness. In addition, the engagement of the domestic private sector in innovation, including eco-innovation, is very weak. The number of patent applications in environment-related technologies remains limited. Slovakia needs to galvanise all the relevant stakeholders to strengthen its innovation performance, including in the environmental sector.

Recommendations

- Review the efficiency and effectiveness of environmentally related taxes in achieving their environmental objectives, and their coherence with other economic instruments.
- Consider extending the annual road vehicle tax to private cars and link the tax rate to environmental performance, particularly carbon and other emissions that may pose risks to human health in urban areas.
- Periodically assess the value-added of the Environmental Fund and Recycling Fund in terms of both their economic efficiency and environmental effectiveness in meeting their objectives; consider options for adjusting the objectives and operation of the Funds, including eventually phasing them out.
- Strengthen capacity to attract, absorb and efficiently allocate EU funds for environmental purposes.
- Build capacity for economic analysis to support environment-related policy development and implementation; strengthen co-operation between the Slovak Statistical Office, the Ministry of the Environment and other relevant ministries and agencies to develop environmental accounting.
- Improve general innovation capacity through greater support for higher education and international co-operation in science and research; refocus public support for environment-related R&D on selected areas and consider incentives to increase the private sector contribution in this regard; establish innovation clusters or other mechanisms to foster more intensive co-operation among central and local governments, multi-national and national enterprises, and universities and the financial sector to promote the development and diffusion of eco-technologies.

Implementation of environmental policies

Cross-cutting issues

7. Upon acceding to the EU in 2004, Slovakia made a huge investment to align its environmental regulatory framework with its new obligations as an EU member. Slovakia should be commended for broadly achieving this difficult objective on time. The speed and scope of the resulting changes generated complaints from the business community about additional burdens and the potential impact on competitiveness. Although some initiatives have been taken to simplify and reduce the administrative burden of environmental regulations and to clarify obligations, more could be done in this regard. More could also be done to engage the business community in a constructive dialogue on environmental issues, and to promote a more proactive approach in which environment is seen not just as a threat but also an opportunity.

8. After reforming environmental policies and institutions in the early 2000s, the Slovak environmental administration went through a period characterised by instability, and deteriorating relations with stakeholders. Following a merger with the Ministry of Agriculture, the re-establishment of a separate Ministry of Environment in 2010 provides an opportunity for a fresh start. The ministry should take this opportunity to clarify its priorities, strengthen its relations with the business and NGO communities, and take the steps necessary to establish itself as a high-quality, professional organisation.

9. In line with EU policy, Slovakia has adopted an integrated approach to pollution prevention and control. Although a system of integrated permits has been developed, permits for large installations are issued in parallel with permits under media-specific laws, and requirements for small and medium-sized enterprises could be streamlined. The process of assuring compliance with regulatory requirements has gradually become more risk-based. The system for preventing industrial accidents has been effective. Some efforts have been made to strengthen compliance promotion. However, the adoption of an explicit environmental enforcement policy could clarify priorities and provide the basis for longer-term planning and performance assessment. More targeted inspection planning could result in efficiency gains, increased flexibility in reacting to potential risks, and improved effectiveness of response to non-compliance and pollution incidents.

10. Slovakia has developed an impressively comprehensive, policy-relevant system of environmental information. However, more could be done to include information on economic, financial and social aspects of environmental policies. Access to information has been strengthened in line with EU requirements. However, historically well-established provisions for public participation and access to justice have been weakened in recent years. Relations between NGOs and the environmental authorities have been difficult, and often adversarial. Public participation in environmental impact assessment and strategic environmental assessment procedures, especially for transport and energy-related projects, has been a particular source of concern. The definition of standing, which determines eligibility to initiate legal proceedings, should be made consistent with that in the corresponding EU directives.

Recommendations

- Develop a new environmental strategy as an integral part of Slovakia's strategy for economic and social development; ensure that the environmental administration is stable, professional, efficient and open, dedicated to pursuing ambitious environmental goals.
- Speed up the development of a comprehensive, user-friendly web-based guide to environmental legislation that can facilitate compliance of the regulated community, especially energy- and pollution-intensive companies, with environmental requirements.
- Further streamline and simplify environmental permitting and integrate inspection procedures; develop an explicit environmental enforcement policy that includes enforcement priorities and policies for applying sanctions; strengthen compliance promotion efforts targeting small and medium-sized enterprises.
- Ensure that environmental impact assessment and strategic environmental assessment procedures are fully in line with EU requirements, particularly regarding public participation and access to justice.
- Establish a forum in which the Ministry of Environment and NGOs meet regularly with a view to strengthening dialogue and co-operation.

Air, water, waste and biodiversity***Air management***

11. Slovakia succeeded over the review period in decoupling air pollution emissions from economic growth: while GDP increased more than 60% between 2000 and 2008, emissions of most pollutants (SO_x, NO_x, CO, ammonia, particulates, mercury and dioxins/furans) decreased. Emissions per unit of GDP are in line with the OECD averages. Slovakia is on track to more than achieve its goals under the Convention on Long-range Transboundary Air Pollution. Key factors in this performance have included a switch to cleaner fuels, upgrading production processes, and the use of more advanced technologies (*e.g.* desulphurisation, catalytic converters). EU accession resulted in more stringent pollution standards and helped to accelerate implementation of policy measures. Emission taxes differentiated by health impact, and non-compliance fees, have provided effective incentives for adoption of best available technologies. However, more could be done to assess the benefits and costs of policy objectives, and to design the most cost-effective mix of instruments. Since 2000, emissions of NO_x from road transport, NMVOCs from solvent use, and particulates from the residential sector have been growing. Emissions of lead, polycyclic aromatic hydrocarbons and polychlorinated biphenyls have been increasing. Heavy metal emissions per unit of GDP remain above OECD Europe averages. Although most air quality standards are respected, particulate matter and ground-level ozone concentrations frequently exceed limit values for protection of human health.

Water management

12. Slovakia enjoys abundant water resources. Water use has been reduced as a result of pricing reform, structural changes and increased efficiency in consumption by industry and agriculture. However, despite strengthened measures, water pollution is still a challenge: around half of water bodies are at risk of

not meeting the good-status objectives of the EU Water Framework Directive for surface and groundwater by 2015. Assuring adequate quality is particularly important for groundwater, the main source of drinking water for the population. Most farmland is in nitrate-sensitive areas. Slovakia has incurred significant costs because of floods in the recent past. Better landscape and land use planning, management and investment measures, within a river basin management perspective, are needed to support flood prevention and response measures.

13. Slovakia has taken important steps towards more integrated water management. The 2004 Water Act transposed the Water Framework Directive into national law. River basin management plans have been developed and measures identified. Although the plans provide a good knowledge base, they should be regarded as a useful first effort that would benefit from early revision after consultation with stakeholders. More emphasis should be placed on carrying out economic and financial analysis of investment needs and available funding, as well as reducing conflicts between policies in areas including agriculture, energy, land use planning and nature conservation. The institutional framework for river basin management has yet to be developed, but it should provide a better framework for decentralised decision making and implementation at the sub-basin level. It would also facilitate transboundary co-operation, such as within the International Commission for the Protection of the Danube.

14. Improving and extending water supply and wastewater infrastructure is a particular challenge. Slovakia's connection rates are among the lowest among the OECD countries. Important steps have been taken to increase the transparency and efficiency of water utility operations, increase water and sanitation tariffs, reduce cross-subsidisation and introduce additional economic incentives for better water management. Emphasis should now be placed on improving and extending sewerage systems, installing higher-performance wastewater treatment capacity, and achieving high connection rates to water supply and sanitation networks. Analysis of priority areas for investment, better project preparation and careful analysis of funding options are necessary to close a large implementation gap in meeting the EU Urban Wastewater Treatment Directive requirements. Further reform of water utilities, especially the smaller operators, could also help increase the effectiveness and efficiency of investments.

Waste management

15. Over the last decade, industrial restructuring and technological change led to an absolute decoupling of industrial waste from economic growth. As domestic material consumption increased more slowly than GDP, the material intensity of the Slovak economy fell by nearly 20% between 2000 and 2007. Municipal waste generation has been relatively decoupled from private final consumption. With 300 kg of municipal waste generated per capita in 2009, Slovakia continues to be well below the OECD Europe average, reflecting the remaining gap in GDP per capita compared with many other OECD economies. Additional efforts on waste prevention and recovery are needed to further decouple municipal waste generation from expected increases in living standards.

16. Overall there has been little progress in diverting waste from landfill or increasing recovery. Slovakia fell short of most objectives set out in the national waste management plan for 2006-10, in particular concerning hazardous waste. Separate collection of municipal waste improved, but in comparison with other EU countries, Slovakia has performed poorly. Landfilling remains the predominant type of municipal waste management, accounting for 80%. The country failed to achieve the reduction target in the relevant EU directive on amounts of biodegradable municipal waste going to landfill. National targets for recycling and recovery of waste electrical and electronic equipment were achieved. Although the collection rate of 4 kg per capita required by the corresponding EU directive was reached in 2010, rather than 2008, the amounts collected represented a minor share of equipment put on the market. Slovakia met the EU targets on recycling of end-of-life vehicles and used tyres.

17. On the whole, waste management has not been a priority on the Slovak political agenda over the past decade. Waste policy has not been planned realistically and efforts have focused on catching up with EU requirements. Economic instruments have been ineffective in reducing the amount of waste generated and landfilled, and the revenue generated is not sufficient to cover waste management costs. To meet EU Waste Framework Directive requirements, substantial investment is needed to increase capacity for separate collection and treatment of separated components of municipal waste, and to build adequate facilities for hazardous waste treatment.

18. As recommended in the 2002 OECD Environmental Performance Review, Slovakia completed an inventory of contaminated sites in 2008. Costs of remediation were estimated at 1.8% of GDP. However, Slovakia missed an opportunity, while privatisation was progressing, to establish a legal framework defining responsibilities for environmental remediation associated with the previous operation of state enterprises. Financing arrangements for remediating orphan sites or sites whose owners went bankrupt remain a concern. In 2010, the government approved a programme of site rehabilitation, with financing mainly dependent on finance from the EU.

Nature and biodiversity

19. Slovakia has significantly strengthened its framework for biodiversity protection over the last decade, largely by transposing the relevant EU Directives. It has also contributed to, and benefited from, co-operation with neighbours, notably in the area of wetlands. Overall, the results achieved are mixed: compared to other OECD countries the proportion of threatened species is relatively low for birds average for mammals and freshwater fish but relatively high for reptiles, amphibians and vascular plants. Continued efforts are needed to support the recovery of critically endangered species.

20. As part of its EU obligations, Slovakia has set the very ambitious target of protecting about 30% of its territory (including 12% of special areas of conservation) as part of the Natura 2000 network. Currently 23% of the total area is under national legal protection. Meeting this objective is a challenge and will require action on several fronts: identifying appropriate sites (as requested by the European Commission) taking account of the benefits for biodiversity protection and the associated costs; developing synergies with other policy areas, particularly agriculture and tourism; strengthening co-operation with other stakeholders, notably landowners, farmers and the public; broadening the use of economic instruments; and strengthening implementation of the “territorial system of ecological stability” to promote connectivity and landscape stability.

21. Currently, the economic instruments most commonly used are a mix of fees, fines, subsidies and compensation. Opportunities for creating markets for biodiversity protection and payments for ecosystem services should be more systematically examined. Opportunities for linking agri-environmental measures more closely to environmental outcomes should also be considered further. The possible contribution that the tourism sector could provide to finance landscape conservation and agri-environmental measures merits further analysis.

Recommendations

Air management

- Develop cost-effective measures to reduce air emissions from growing sectors (*e.g.* transport, residential heating), and to reduce potential health impacts in urban areas.

Water management

- Review and adjust the ten sub-basin water management plans so as to increase synergies between policies (including those for agriculture, water supply and sanitation, landscape and land use planning, flood prevention, nature conservation and climate change adaptation); complete institutional arrangements for river basin management with a view to assuring adequate consultation between stakeholders and effective implementation at the sub-basin level.
- Conduct a comprehensive evaluation of the current gap in water supply and sanitation infrastructure, the measures required to meet objectives, and their cost; on this basis devise a realistic strategy for achieving EU objectives for the water sector, particularly for wastewater treatment, including clear priorities, strategic financial planning for achieving objectives and proposals for further institutional reform of the water management sector; identify measures to increase connections to the water and wastewater networks.
- Strengthen measures to reduce flood risks and their impacts, emphasising preventive landscape and land use planning and low-cost (ecosystem) options and technologies.

Waste management

- Review economic instruments applied to waste management, with a view to increasing their incentive for waste minimisation, recovery, and diversion from landfill.
- Implement the state programme on contaminated sites, applying the polluter pays principle to site clean-up when appropriate, prioritise sites with the greatest risk to human health and the environment, and assure long-term funding for orphan site remediation.

Nature and biodiversity

- Develop a comprehensive strategy for protected areas in line with the Natura 2000 objective, involving all relevant stakeholders and taking account of the benefits and costs of different options; further develop the monitoring and information system for nature and biodiversity protection.
- Expand the use of existing economic instruments for biodiversity protection, and develop new instruments, particularly payments for ecosystem services.
- Better integrate landscape protection into land use planning; explore ways in which the tourism sector could provide payments for the services provided by landscape management; develop a valuation methodology to provide a basis for estimating payments to landowners and farmers for the ecological services they provide.

International co-operation

22. There are several strong reasons for the Slovak Republic to play an active role in international environmental co-operation, particularly with neighbouring countries. Slovakia is both a major source and recipient of transboundary air pollution; it shares watercourses which are subject to floods and transboundary pollution; and it is at the intersection of important ecosystems and hence a host to rich biodiversity. Slovakia has taken these responsibilities seriously, becoming a party to a range of international environmental agreements and actively supporting their implementation. For example, it hosts the International Water Assessment Centre that supports the Convention on the Protection and Use of Transboundary Watercourses and International Lakes; it initiated and co-ordinates the Carpathian Wetland Initiative; and it hosts the Basel Convention Regional Centre for Central Europe, which promotes implementation of the convention. Nevertheless, further efforts are needed to implement provisions of some multilateral environmental agreements, including the Convention on Biological Diversity and the Stockholm Convention on Persistent Organic Pollutants. EU membership in 2004 created new obligations and put pressure on the limited resources available for international environmental co-operation. In recent years, staff changes and budget cuts have contributed to a weakening of participation in international environmental processes. Slovakia now needs to elaborate a strategy for international environmental co-operation that has clear priorities and addresses implementation issues.

23. Slovakia has a small, open economy, underlining the need for appropriate measures to manage trade-related environmental risks. It has taken steps to implement the OECD Guidelines for Multinational Enterprises and OECD recommendations concerning the potential environmental impact of activities supported by export credits. Consumption of ozone-depleting substances (all imported) significantly decreased during the review period. Some progress has been made in enforcing trade-related conventions, but more and better-targeted inspections are needed. The monitoring and inspection of potentially illegal shipments of ozone-depleting substances is probably not sufficient for detection of violations, and the number of controls on shipments of hazardous waste has declined even though illegal movements have been detected. Since 2008, neither the Slovak Environmental Inspectorate nor district environment offices have been able to impose penalties for breaches of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).

24. Slovakia has been a donor country since 2003 and has graduated from World Bank assistance programmes in 2008. As a member of the EU, it has accepted obligations to increase its provision of official development assistance (ODA). Nevertheless, in 2010 its ODA amounted to 0.09% of gross national income, well short of the 0.17% 2010 target for countries that joined the EU after 2002. Environment accounted for about 14% of development projects between 2004 and 2009. Bilateral assistance represented, in turn, about 27% of total ODA in 2010.

Recommendations

- Establish clear priorities for international environmental co-operation and strengthen related capacity.
- Strengthen implementation of ratified multilateral environmental agreements, and promote better co-ordination and communication among ministries, state agencies and other stakeholders involved (for example, in relation to the Convention on Biological Diversity and the Stockholm Convention).

- Strengthen bilateral and regional co-operation for the protection of transboundary waters, and promote implementation of the Danube River Basin Management Plan.
- Further strengthen inspection and enforcement of trade-related environmental conventions, remove legal obstacles to imposing penalties for infringement of CITES on Slovak territory, and continue programmes for training judges and prosecutors in environmental matters.
- Increase official development assistance, and its environmental component, in line with EU obligations.

2. Selected issues

Climate change and energy

25. As of 2008, the Slovak Republic had already over-achieved its target under the Kyoto Protocol of reducing its greenhouse gas (GHG) emissions by 8% in the 2008-12 period compared with 1990 levels. Economic restructuring, changes in the fuel mix, and efficiency gains have been the main drivers for the dramatic decrease in GHG emissions in the 1990s. Emissions stabilised between 2000 and 2008 despite rapid economic growth. This resulted in a marked drop of the energy and carbon intensities of the economy, the largest decreases among OECD countries. However, Slovakia remains among the most energy- and carbon-intensive OECD economies. Emissions are projected to grow in the post-Kyoto period, especially in the transport and industry sectors, creating potential challenges for Slovakia to meet its mid- and long-term reduction targets.

26. Slovakia has made progress in mainstreaming climate change consideration in sectoral policies. It reinforced inter-institutional co-ordination on climate change and energy policies, with the establishment of a working group (in 2005) and a high level Commission for the Climate and Energy Package (in 2008). However, climate change has not been high on the political agenda, partly due to the lack of demanding international commitments in the last two decades. The national climate change policy is largely shaped by energy security considerations and the EU energy- and climate-related legislation. Slovakia has not yet developed a clear and comprehensive framework linking climate, energy and transport policies at the national level, as well as a climate adaptation strategy. Looking forward to the more challenging future emission trends, there is a need for strengthened economic and scientific analyses to support decision-making and to enhance Slovakia's participation in the climate debate at European and international levels.

27. Slovakia's participation in the EU Emissions Trading System (EU-ETS) has been characterised by an over-allocation of allowances, all given for free. This has represented an implicit subsidy to participating installations and has reduced the effectiveness of the system. The revision of the EU ETS for the period 2013-20, with an EU-wide emissions cap and the auctioning of allowances, is expected to improve effectiveness and efficiency. In 2011, the government levied a tax on windfall profits deriving from the excess allocation of allowances, although this approach has been questioned by the European Commission. Slovakia removed several energy subsidies and tax exemptions, including on natural gas and coal used by heating companies. However, it continues to support electricity generation from domestic coal; several exemptions from excise duties continue to apply, including to households and energy-intensive industries. This could encourage wasteful consumption. Prices of energy products used in the residential sector and in industries not covered by the ETS are relatively high; however, their tax components do not always adequately reflect GHG emissions costs.

28. Slovakia has made limited use of the Kyoto Protocol flexible mechanisms. Due to the dramatic decrease in GHG emissions in the 1990s, and the overachievement of the Kyoto target, Slovakia has a large surplus of government emissions rights that can be traded in the global carbon market. Slovakia established a Green Investment Scheme (GIS) in 2009, subsequently revised, to collect proceeds from the sale of these rights and to reinvest them in environmental and climate mitigation projects. However, the delay in setting up a GIS has hindered effective and transparent use of the trading mechanism.

29. Transport is one of the few sectors in which energy consumption and GHG emissions have increased since 2000, and are projected to grow faster. Freight road transport increased significantly, especially after Slovakia's accession to the EU. Rapid economic growth and rising international trade volumes, supported by heavy investment in road infrastructure, stimulated road transport. Rising living standards have also stimulated car ownership and use. This, together with the lack of efficient and reliable alternative transport modes, including rail and urban transport, may explain the growing demand for road transport despite increasing fuel prices. A positive step forward was the recent introduction of a distance- and emissions-based electronic toll system for heavy vehicles travelling on main roads. Some regional authorities also differentiated the annual tax on commercial vehicles by emission levels. However, in 2010, the government lowered the diesel tax rate, aiming to compensate for the increase in road tolls and to attract freight transit.

30. Until recently, Slovakia had made relatively slow progress in developing renewable energy sources. Preliminary data indicate that the 2010 target to provide 19% of gross electricity consumption from renewables was met, although mainly due to a decrease in electricity consumption. In the second half of the 2000s, a feed-in tariff scheme was introduced, which stimulated production of electricity from renewables, especially biomass, and cogeneration facilities. Several other forms of investment subsidies have also been made available. However, they entail potential overlaps and over-subsidisation. The 2010 National Renewable Energy Action Plan aims at obtaining 14% of final energy consumption from renewable sources by 2020. The Plan correctly targets the sectors with the highest potential, such as small-scale electricity power generation and biomass for heating. Despite recent progress, non-economic barriers, such as complex administrative procedures, insufficient grid capacity, and lack of information and technical expertise remain major obstacles to an extensive use of renewable energy.

31. An energy efficiency legislative framework, mostly based on EU directives, is in place. However, more resolute efforts on implementation are needed to reap the benefits of low-cost energy efficiency improvements, especially in the building and transport sectors. Slovakia's first National Energy Efficiency Action Plan (NEEAP 2008-10) identifies the intermediate and final energy savings targets, the measures to achieve them, the expected impacts and costs of each measure, and the associated financial requirements. The NEEAP addresses the main barriers to the adoption of energy efficient solutions in the various sectors of the economy, including weak participation of the private sector and public awareness. Commendably, it places emphasis on developing an appropriate monitoring, evaluation and enforcement system. However, it is unclear how the measures were selected, how their potential impacts and costs were assessed, and whether such measures will achieve the energy saving target at the least cost. The NEEAP focuses on technical energy efficiency and awareness raising, and less attention is given to developing economic incentives for energy and emission saving behaviors. In May 2011, the second NEEAP (2011-13) was adopted.

Recommendations

- Consolidate the inter-institutional co-operation platform and extend its activities to the strategic design and assessment of climate change, energy and transport policies; strengthen the system to monitor implementation of GHG emissions reduction policy measures, extending it to their related financial and economic costs, with a view to assessing and improving overall cost-effectiveness.
- Regularly assess the efficiency and effectiveness of mechanisms to support renewable energy sources, considering their environmental and economic implications, the impacts of feed-in tariffs on electricity prices, and the potential overlap among different forms of support; decrease feed-in tariffs in line with technological progress and phase out all support schemes for renewable energies as they become competitive with conventional energy sources; further streamline administrative and permitting procedures for the installation of renewable energy plants.
- Improve the effectiveness of Slovakia's participation in the EU ETS and use of the Kyoto Protocol flexible mechanisms by ensuring transparency of transfers of emission allowances and revenue use, and fully implementing the Green Investment Scheme.
- Continue to gradually phase out coal subsidies and tax concessions for energy use by households and in energy-intensive industries, with a view to encouraging changes in energy consumption patterns and contributing to fiscal consolidation.
- Consider restructuring taxes on energy products used in sectors not covered by the EU-ETS by including a CO₂ tax component; consider raising the tax rate on diesel with a view to making the tax treatment of automotive fuels consistent with climate change objectives.
- Extend to cars the existing distance-based and emission-differentiated road tolls applied to heavy good vehicles.
- Speed up modernisation of rail infrastructure, improve public transport services and develop alternative modes to road transport.

Agriculture and environment

32. The transition of the Slovak Republic towards a market economy, initiated in the 1990s, substantially reduced environmental pressures from agriculture. Pressures were further reduced in the 2000s due to policy reforms and investments linked to EU accession. As a result, many agri-environmental indicators (e.g. nitrogen and phosphorus balances, water use, ammonia emissions) showed positive trends in the 2000s. Nevertheless, agricultural practices still exert important pressures on the environment. Almost 60% of farmland is located in nitrate vulnerable zones requiring protection policies. Soil erosion is a widespread problem for arable land in mountainous ("less favoured") areas, which make up 50% of agricultural land.

33. Rural areas account for 86% of the territory and 40% of the population. A significant part of EU farm support is channelled through a harmonised rural development programme that aims to improve

competitiveness in the agriculture, food and forestry sectors, promote sustainable farming and forestry, and improve quality of life in rural areas. Although the programme has contributed to a decoupling of support payments from agricultural production, and the associated environmental pressures, more could be done to link payments to environmental outcomes. A positive step has been the introduction of payments to help manage biodiversity on Natura 2000 sites which cover a high share of Slovakia's territory. One outcome of agri-environment policies is that, in 2009, organic agriculture accounted for 7.6% of farmland, exceeding the 2010 target of 7%. Payments to less favoured areas have helped maintain extensive forms of farming and prevent land abandonment in areas of high environmental and recreational value.

34. A fundamental challenge to improving environmental performance in the sector is the matter of property rights. Since transition to a market economy began, there has not been much progress in identifying landowners. As a result, the agricultural land market is not well developed, and 85% of farm operations are on leased land. From an environmental perspective, this reduces incentives to manage farmland in a longer-term, environmentally-sound perspective. It also creates problems regarding management of voluntary agri-environmental programmes, which must be implemented for five consecutive years to receive payment.

Recommendations

- Promote voluntary farm management plans in which environmental objectives going beyond national requirements would be eligible for additional support; promote fertiliser and manure management plans at the farm level in nitrate vulnerable zones.
- Consider how environmental outcomes could be better targeted in payments under the harmonised rural development programme, including Natura 2000 payments, other agri-environmental payments, and payments to maintain farming in less favoured areas.
- Strengthen incentives for more environmentally sound agricultural practices by accelerating the identification of landowners and the development of the land market.