Assessment and recommendations

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.

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.

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 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.

Environmentally harmful subsidies have been reduced in the agricultural and energy sectors. However, preferential tax treatment offered to energy-intensive industries provides 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.

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.

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.

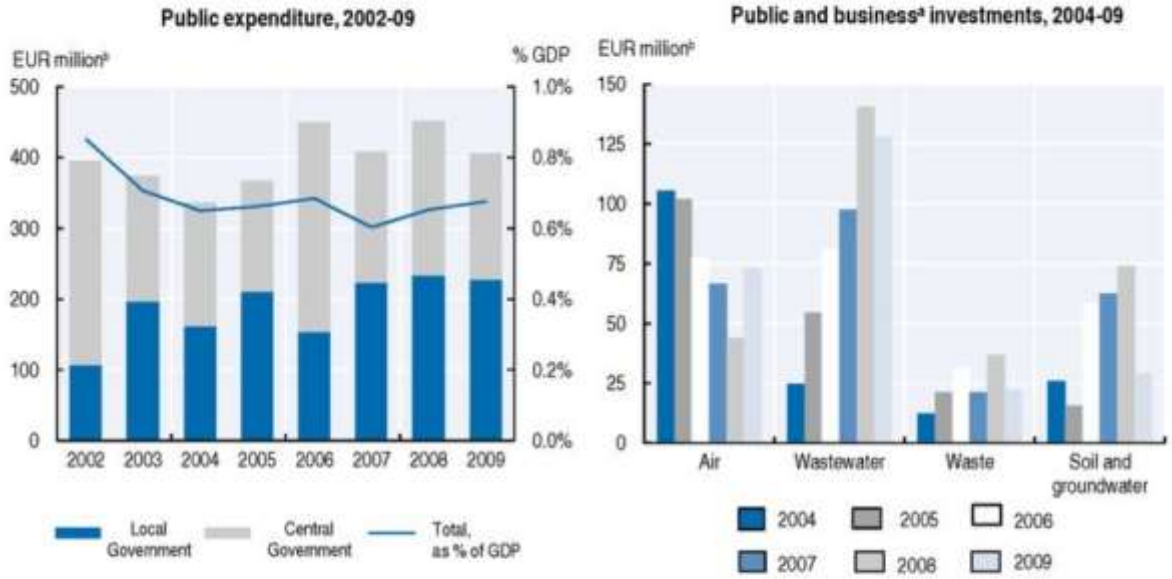
Recommendations

- 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 regarding 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 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, multinational and national enterprises, and universities and the financial sector to promote the development and diffusion of eco-technologies.

2. Environmental expenditure and financing

According to the Slovak Statistical Office, public and business environmental protection expenditure[2] as a share of GDP fell by about half from the mid-1990s to 1.1% in 2009. Since 2002, public[3] environmental protection expenditure had decreased from 0.9% to 0.7% of GDP, putting Slovakia slightly below the OECD average (0.8%) in 2009. As part of the decentralisation process, state budget expenditure was reduced while local government spending rose markedly to account for more than 60% of public environmental outlays in 2009 (Figure 2.2).

Figure 2.2. **Environmental protection expenditure**



a) Includes municipalities and enterprises with 20 employees or more.
b) Constant 2005 prices.

Source: OECD (2011), *OECD National Accounts Database*; Slovak Statistical Office.

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Although growing in real terms, public and private environmental investment remained around 0.4% of GDP over the review period. However, there was a shift in environmental priorities. While the bulk of investment on air protection was made prior to and during EU accession, financial efforts since then have been increasingly directed to wastewater treatment, protection of soil and groundwater, and waste management (Figure 2.2). Between 2004 and 2008, wastewater investment rose almost sixfold, investment in waste, soil and groundwater tripled, and investment in air protection fell by more than half. Since 2007,

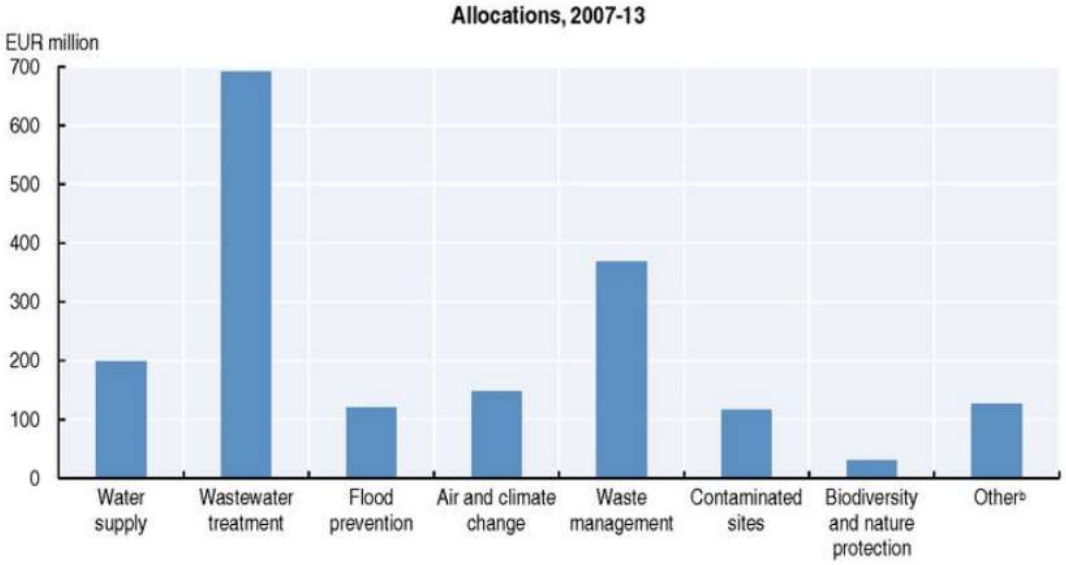
electricity, gas and water supply have been the main sectors investing in environmental protection, outstripping the manufacturing industry (basic metals, refineries), which invested the most in air protection.

Financing environmental protection

EU funds have steadily increased over the last decade, contributing 0.3% to Slovak gross national income in 2000, 1.2% in 2004 and 1.9% in 2009 (EC, 2010b).This support has played a significant role in environmental investment (including water supply): EU funding accounted for about two-thirds of public expenditure on the environment in 2008 (EC, 2010c). Before accession, Slovakia benefitted from various instruments aiming at gradual adoption of the EU environmental *acquis* (Phare programme) and funding for environment infrastructure (through ISPA,[4] the Instrument for Structural Policies for Pre-Accession). Upon accession in 2004, the financing level increased with access to Cohesion and Structural Funds. In the 2004-06 programming period,[5] more than EUR 400 million of EU funding[6] was spent on environmental infrastructure, mostly for water.

In the next programming period, 2007-13, environmental protection was set as the second priority for EU funding, after transport. The total budget allocated to the operational programme for environment amounted to EUR 2.1 billion, including EUR 1.8 billion of EU funds (mostly Cohesion Fund). This represents about 16% of the total budget allocated to Slovakia under the cohesion policy. The water sector (wastewater treatment and water supply) remains the priority sector, with 50% of the allocated funds, followed by waste management (20%), air quality and climate change (8%), flood prevention (7%) and contaminated sites (6%) (Figure 2.3). In addition, about EUR 2 billion was allocated to indirect environmental investment in areas such as rail transport, renewable energy and energy efficiency (EC, 2010d).

Figure 2.3. **EU funds[a] for environmental investments**



a) Includes Structural (13%) and Cohesion (87%) Funds.
b) Other measures to preserve the environment and prevent risks; promotion of clean urban transport; preparation, implementation, monitoring and inspection; evaluation and studies; information and communication.

Source: Operational Programme Environment, MoE.

StatLink http://dx.doi.org/10.1787/888932496083

EU financial assistance has contributed to major improvements in the water sector: the share of population connected to public water supply rose from 83% in 2000 to 86% in 2009. The connection rate for public wastewater treatment progressed from 51% to 58%, compared with an average of 81% in OECD Europe. In the waste sector, about a hundred separation and recovery facilities were built or modernised over the decade. EU funds also contributed to the closure or remediation of uncontrolled landfills and incinerators. Nevertheless, while landfilling accounts for about 40% of municipal waste treatment in OECD Europe, 80% of waste is landfilled in Slovakia. The estimated financing gap for compliance with the EU Urban Waste Water Directive will amount to EUR 1.8 billion in 2015 (MoE, 2010).

Slovakia performed relatively well in absorption of EU funds over 2004-06, compared with other countries that joined the European Union in 2004 (EC, 2010e, 2010f). Yet, at the end of 2009, it was not as effective as other new members in drawing EU funds for the 2007-13 programming period, in particular funds related to the environment. The task was more difficult for new members because the significant increase in the assistance granted, combined with the overlap of the two programming periods, increased the need for administrative capacity. In addition, the large scale of the environmental projects concerned meant that longer preparation times were necessary. However, the challenge in Slovakia was more acute because the worsening of local government finances made it difficult to raise national matching funds, and changes in ministry responsibilities complicated matters[7] in relation to EU funds (K. Frank, 2010a).

Between 2004 and 2009, Slovakia received EUR 64 million from the European Economic Area and Norway grants.[8] One-quarter of it was aimed at projects on environment and sustainable development. The largest projects concerned modernisation of public street lighting and establishment of water management infrastructure in the town of Tvrdošín. Under the 2009-14 agreement, climate change is the largest priority. Out of EUR 81 million

allocated to Slovakia, EUR 27 million is earmarked for programmes on adaptation to climate change and green industry innovation.

In the context of a 2007 framework agreement between the Swiss Federal Council and the Government of the Slovak Republic,[9] Switzerland allocated CHF 67 million (about EUR 41 million) to Slovakia for 2008-12. The main priorities are the development of structurally weak regions in eastern Slovakia and improvement of environmental and basic infrastructure. The "environment and infrastructure" thematic focus represents around 40% of the total funding, most of it for the modernisation of wastewater treatment and waste infrastructure. Remaining funds were allocated to nature protection and support to non-government organisations (NGOs).

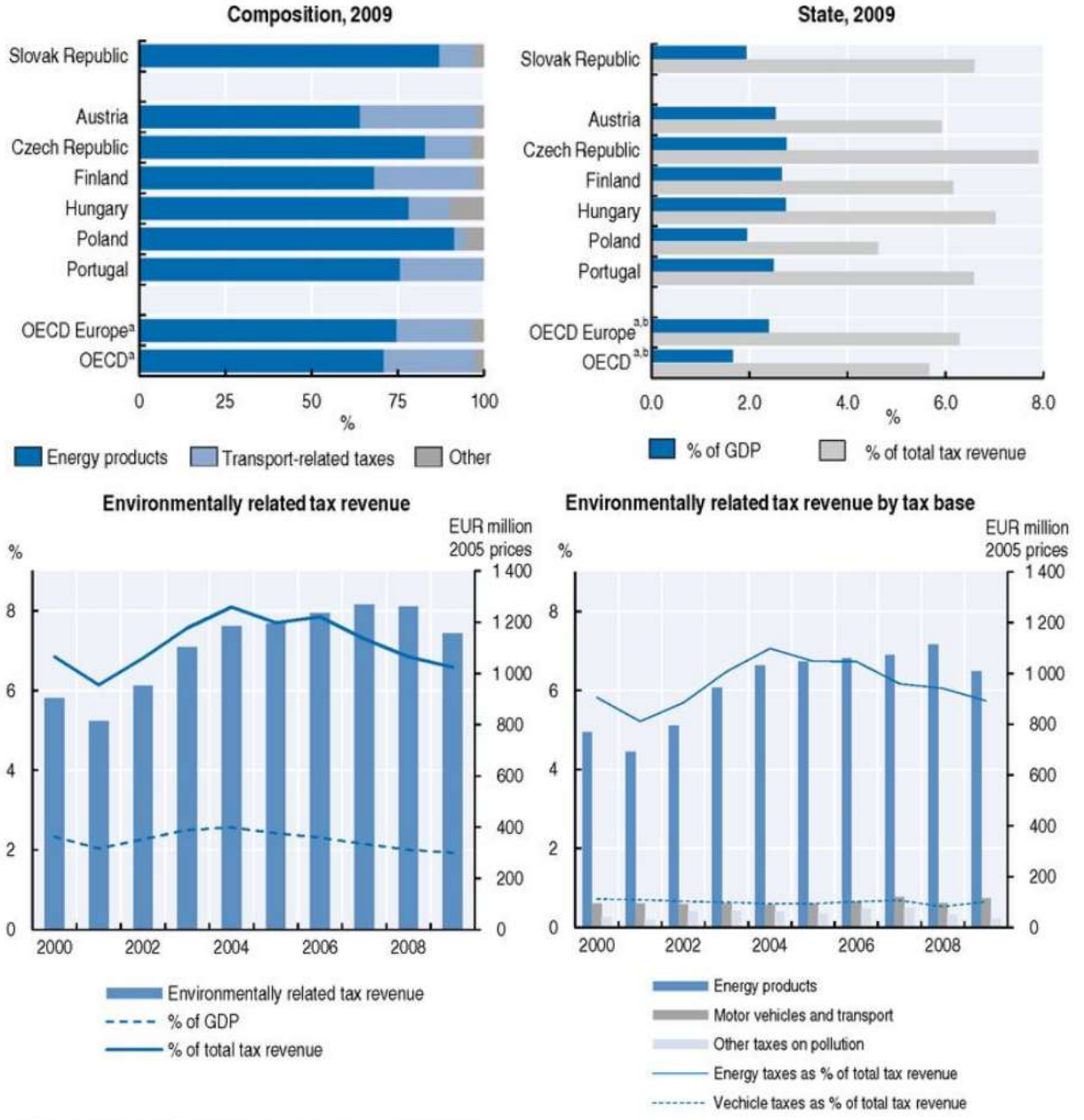
In sum, further effort is needed to meet the standards for environmental infrastructure typical of other EU member states. To this end, Slovakia must make the most of the opportunities provided by EU membership and ensure that EU funds are efficiently attracted, absorbed and disbursed. This is not just about constructing infrastructure; it is also about developing capacity for effective programming and project implementation. The experience of some other EU countries, such as Portugal, could be helpful in this regard (OECD, 2011). The Slovak authorities should redouble efforts to work with the European Commission to address bottlenecks in programme delivery and to target investment priorities where performance has been slower. As EU assistance decreases, Slovakia will have to shoulder more of the burden of developing and operating environmental infrastructure. This implies greater reliance on user charges. Opportunities for more involvement by the private sector should also be assessed.

3. Environmentally related taxes

Since the last OECD review, the overall tax burden in Slovakia has fallen. A fundamental tax reform in 2004 equalised rates for personal income tax, corporate tax and value-added tax at 19%. Since 2000, the tax revenue to GDP ratio has decreased by nearly five percentage points. In 2008, it was 29%, well below the OECD average of 35%. Social security contributions (41%, the second highest share in the OECD) and consumption taxes (36%) were the largest source of general government revenue.

In 2009, environmentally related tax revenue accounted for 1.9% of GDP and 6.6% of total tax revenue. Given the generally low level of taxation, this placed Slovakia below the OECD Europe average in share of GDP, but above the average in percentage of total revenue (Figure 2.4). From 2000 to 2008, environmental tax revenue rose in real terms by 40%, then

Figure 2.4. **Environmentally related taxes**



a) Data refer to all current OECD member countries.
b) Weighted averages.

Source: OECD/EEA Database on instruments used for environmental policy; OECD (2010), OECD Economic Outlook No. 88.

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decreased by 9% in 2009 with the economic slowdown. Excise duties on energy products provide the bulk (87%) of the revenue, followed by taxes on motor vehicles (10%) and other taxes on pollution (3%).

Taxes on energy products

Energy-related tax revenue in Slovakia is almost completely accounted for by taxes on transport fuel. This is common in new EU states that were granted temporary exemptions or reduced taxation for other energy products under the Energy Tax Directive (2003/96/EC) (EC, 2010g).

Since 2008, Slovakia has collected excise duties on electricity, coal and natural gas, but their share of revenue was limited in 2009 due to the transitional period granted.[10] Since 2000, the implicit tax rate on energy[11] had risen significantly in real terms. As the 2002 OECD Environmental Performance Review recommended, Slovakia initiated a shift from labour taxation towards less distorting taxes on consumption, including on energy products. However, after EU accession, taxes on petrol and diesel were not adjusted for inflation. Related revenue continued to grow, albeit more slowly, due to high growth in road haulage and related diesel consumption (Chapter 5). The low price elasticity of demand indicates potential for tax increases on road fuel. However, the government in 2010 reduced excise duties on diesel in order to compensate road haulers for increased costs incurred by new road tolls, and also to induce transit carriers to refuel in Slovakia (IREF, 2011) (Figure 2.5). According to the Ministry of Finance, this change resulted in 15% growth in diesel consumption, which did not offset the drop in revenue due to the lower diesel rate. Therefore, the government should reconsider the diesel tax rate from the perspectives of both the environmental impact and the effect on the budget

deficit. Nevertheless, tax increases have to be set against their social implications. In 2010, despite the reduced excise duty on diesel, diesel and unleaded petrol prices for households remained, respectively, 37% and 38% higher in Slovakia than in OECD Europe (in terms of purchasing power parities).

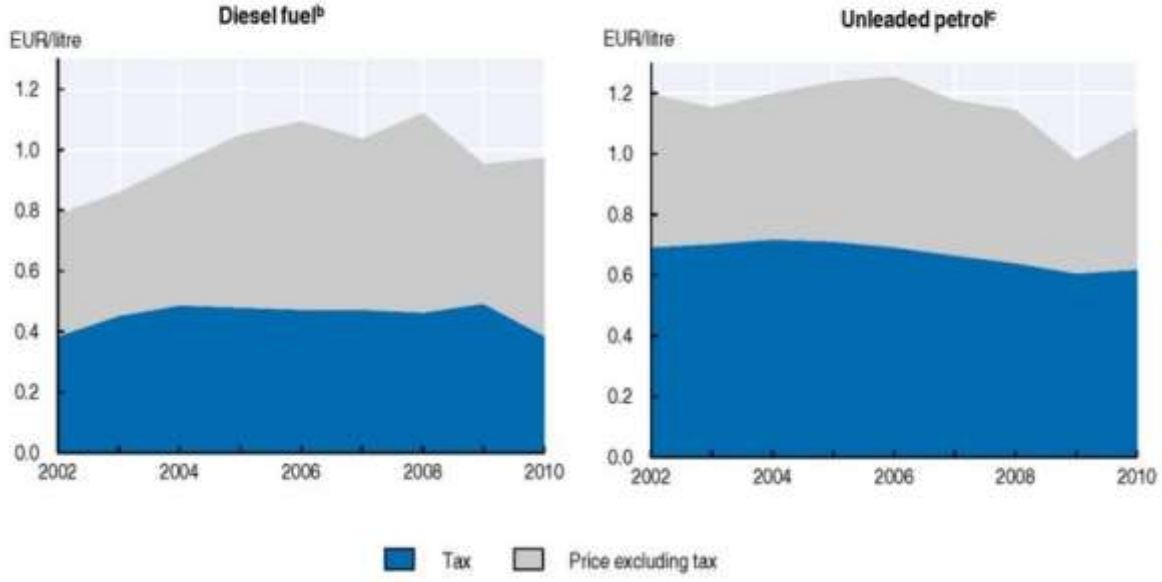
Notwithstanding a decline in residential energy consumption, the share of electricity, gas and other fuels in household expenditure has increased over the past decade due to the rise in real price of energy: it reached 11% in 2008, compared to 4% in the European Union. Reacting to higher prices, some households have switched from gas to wood for heating, with adverse impacts on air pollution. Further increasing excise duties on energy products could reinforce this trend. It could be offset by introducing compensatory measures not linked to energy consumption to maintain incentives to use energy more efficiently. Such transfers could be funded with the gains in tax revenue. Raising public awareness on the health impact of wood burning should be among the measures to support a shift towards the use of cleaner fuels.

Vehicle taxation

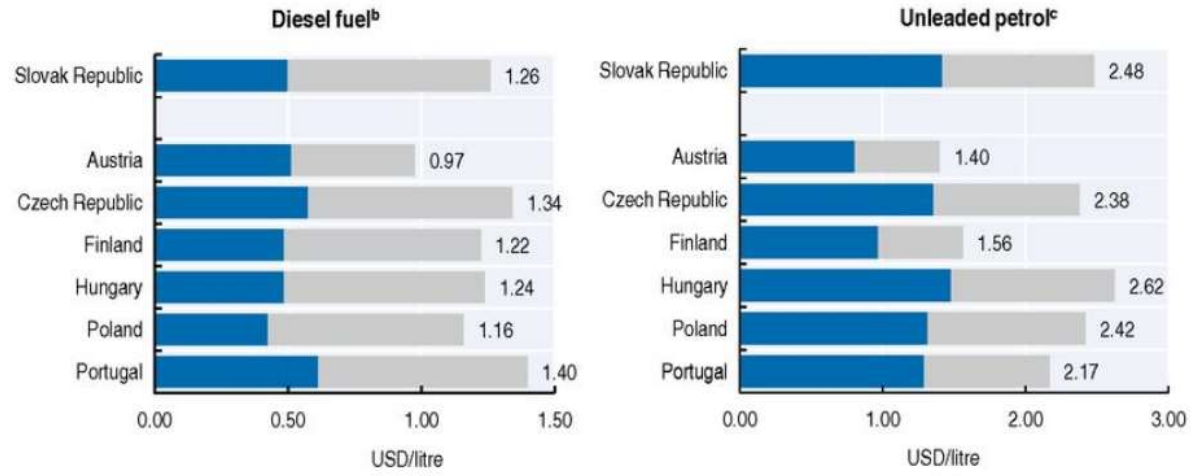
Taxation of motor vehicles accounts for a smaller share of environmentally related tax revenue in Slovakia than in other OECD countries. The key reason is the lack of a tax on private car ownership. Vehicles used for commercial purposes are subject to an annual tax, with a legal minimum rate based on weight and number of axles for trucks and on cylinder capacity for passenger cars. A 50% refund of the motor vehicle tax can be claimed for vehicles used at least 60 times during the tax period for combined transport. The law[12] includes provisions for reducing the rate on vehicles meeting higher emission standards.

Figure 2.5. **Road fuel prices and taxes**

Trends in Slovak Republic,[a] 2002-10



State,[d] 2010



a) At constant 2005 prices.
b) Automotive diesel for commercial use.
c) Unleaded premium (RON 95).
d) Diesel fuel: at current prices and exchange rates; unleaded petrol: at current prices and purchasing power parities.

Source: OECD-IEA (2011), *Energy Prices and Taxes Database*.

Since 2004, regional authorities have collected the motor vehicle tax. Some have based the charges on vehicle emission categories. The share of cleaner vehicles in the fleet would be increased if the taxation were broadened to all vehicles and the rates more systematically differentiated by emission levels.

All vehicles using motorways must carry a tax disc, which in 2010 was replaced by an electronic road toll for trucks. This change is expected to reduce congestion, harmonise conditions in the transport market and raise funds for highway financing and maintenance. It was also expected that about 10% of existing road freight would shift to rail, alleviating some environmental problems.[13] Although the charge is not recorded as an environmentally related tax, it is based on distance travelled and vehicle emission category and is therefore directly connected to the underlying environmental harm caused by transport activity.

Other environmentally related charges and taxes

Although most revenue from environmentally related taxes[14] stems from road fuels and motor vehicles, Slovakia imposes taxes on other environmentally harmful activities and products. These instruments were in place at the time of the 2002 OECD review. In

2008, charges on products for recycling, and on air and water pollution, generated the most revenue among these other instruments. Pollution taxes (*e.g.* on NO_x emissions and landfills) are low in comparison with other OECD countries, which limits their deterrent effect. For example, the landfill tax has not resulted in a reduction in the amount of waste landfilled. On the other hand, transitional non-compliance fees that have been added to basic rates of taxes on landfill and air pollution have proved successful in meeting EU technical requirements and contributed to the closure of obsolete installations (Chapter 3).

Revenue from environmentally related charges on water abstraction and supply and on waste and wastewater treatment amounts to around one-third of the level of environmentally related taxes. These charges rose considerably over the last decade, especially in the water sector, where cross-subsidies between households and other users were progressively removed. This change contributed to the dramatic fall in water consumption. However, current charge levels are not sufficient to support infrastructure needs. According to the MoE, cost recovery for provision of wastewater treatment could be improved by better differentiating the charges and taxes according to the pollution load (Chapter 3).

Charges are often earmarked for the Environmental Fund, where they become available for allocation to general environmental priorities. The current fund was established in 2005[15] to help small municipalities finance environmental protection measures. The demand for financing from the Environmental Fund exceeds its financial capabilities by a factor of 10 to 12. Charges on products for recycling accrue to the Recycling Fund (Chapter 3). Generally, earmarking may counteract the polluter pays principle and may lead to inefficient spending unless there is a clear environmental justification for the expenditure and the operation of the fund is regularly reviewed to ensure that expenditure is cost-effective and still in line with objectives. The operation of these funds should be subject to such review.

Tax expenditure and subsidies

In 2004, the introduction of a flat tax in the Slovak Republic was combined with a significant elimination of tax relief measures, some of which had provided perverse environmental incentives. A number of such provisions remain, however, particularly in the energy sector. In 2010, it was estimated that their removal could provide potential revenue gains of EUR 120 million, around 10% of total environmental tax revenue or 0.2% of GDP (OECD, 2010a). In 2011, as part of the fiscal consolidation package, and in line with obligations under the related EU directive, the government removed tax exemptions on coal and natural gas used by district heating companies, on compressed natural gas

and liquefied petroleum gas used as fuel. Minimum standards for biofuel were fixed with reduced rates. Reduced rates on marked gasoil used in agriculture were also repealed. However, exemptions favouring some energy-intensive industries remain, such as that for electricity used for industrial production if the costs of electricity represent more than 50% of the average own costs of the product manufactured.

Since the 2004 reform, businesses have been able to benefit from income tax credits on expenditure related to environmental protection activities, such as forest cultivation, rehabilitation of land affected by mining, closure and remediation of landfills and disposal of electrical and electronic waste collected from households. Property taxes can be reduced by 50% on certain land for environmental uses, including marshes, windbreaks, buffer zones for water resources and protected areas, or for land with reduced economic value due to pollution. The construction tax for water management can also be so reduced. There has been no assessment of the actual use of these legal provisions or of their cost.

Subsidies to energy

The Ministry of Economy provides several energy subsidies which have an impact on the environment. They include: support for modernising public lighting for municipalities (2010 appropriation: EUR 18 million); installing solar collectors and biomass boilers by households (2010 planned funding: EUR 8 million); increasing energy efficiency in production and consumption; and introducing advanced technology in the energy industry (2010 appropriation: EUR 12 million). Slovakia supports renewable energy sources through feed-in tariffs for electricity production. Finally, coal generation is supported mainly for energy security reasons, but also to compensate the social impact of mine closures

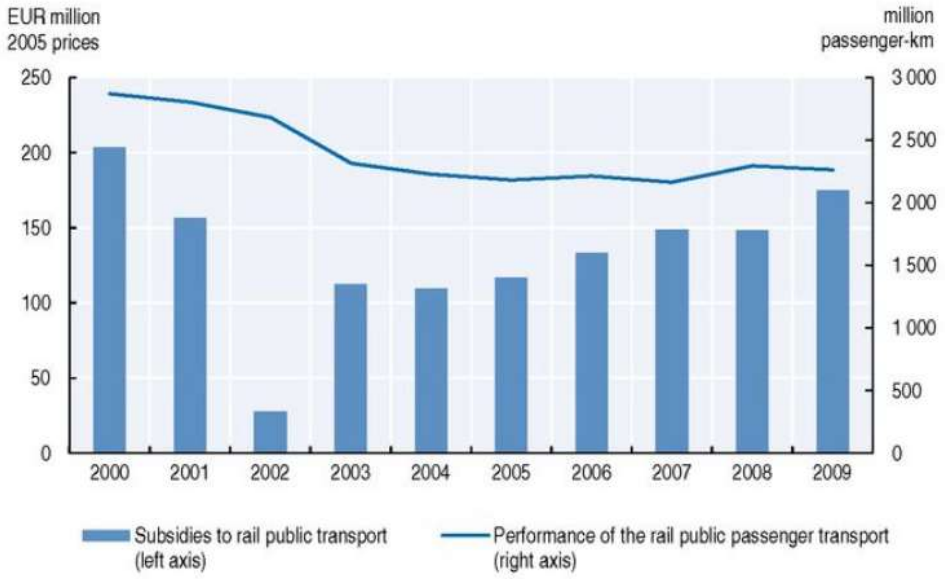
(EUR 30 million in subsidies allocated over 2005-10). Moreover, up to 15% of electricity generation from domestic lignite can be subsidised.

Subsidies to transport

Between 2000 and 2008, energy use in the transport sector and related GHG emissions increased faster than GDP. The rise in energy consumption was caused by a boom in road transport, to the detriment of rail. Major investment in rail and road infrastructure was financed by EU funds[16] and the state budget, and still more investment is expected in the period to 2013. Although motorway construction absorbed the bulk of this investment, support to rail was allocated an equivalent share of funding in the 2007-13 programming period. However, the government is considering reallocating support from education, R&D, employment, social inclusion and rail towards motorway construction.

Public transport by rail, road and water is supported through exemptions on energy taxes. The Ministry of Transport grants subsidies covering losses by the railway infrastructure operator and the rail transport provider through a contract based on performance of services in the public interest (Figure 2.6). These subsidies have hampered the competitiveness of the rail sector, contributing to the financing gap for investment in rail infrastructure (OECD, 2007). Low performance by the railways has been a factor in the shift towards road transport. More effective use of EU funds could help halt or reverse this trend.

Figure 2.6. **Subsidies and performance of rail public transport**



Source: Ministry of Transport; Slovak Statistical Office.

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The operational programme for transport, which sets the investment priorities for 2007-13, has undergone a strategic environmental assessment. The EU co-funded programme is expected to have a positive influence on the environment of urban areas in Slovakia. The assessment also concluded that adverse effects on protected areas and landscape were not significant, leaving mitigation measures to be addressed in environmental impact assessment (EIA) of individual projects. EIA of motorways has been a controversial issue in Slovakia and some projects have been cancelled or postponed because they did not consider environmental issues sufficiently. Currently there is no instrument to offset the negative impact of infrastructure development on protected areas (Chapter 3).

Nature and biodiversity

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 and 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.

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.

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.

Environmental labelling

Environmental labelling of products has been carried out in Slovakia since 1997, when a National Programme of Environmental Assessment and Product Labelling was developed. The use of national eco-labels increased further with the adoption in 2002 of the Act on the Eco-labelling of Products, which created 32 product categories. The "environment-friendly product" label has been awarded to 312 products. The number of products awarded the label each year has grown, from 29 in 2002 to 146 in 2010 (MAERD, 2010). The MoE grants authority to use eco-labels under licensing agreements, following a verification process. Between 1997 and 2009, 51 licensing agreements were reached. Since eco-labels are considered an effective marketing tool, their use requires a registration fee of up to EUR 500 and an annual fee amounting to 0.02% of sales volume (with a ceiling of EUR 4 000). Slovak products can also use the European "flower" label, and four products were doing so as of 2009.

Environmental liability

The 2007 Act on Prevention and Remedying of Environmental Damage transposed into Slovak law the EU Directive on Environmental Liability. The Act does not apply to any environmental damage that occurred before the date the Act entered into force. It stipulates that from 1 July 2012, every operator must prove financial coverage of liability for environmental damage, including expected costs of remedying environmental damage, not later than 100 days after approval of relevant business activity. To date the regulations on liability have not been applied.

Use of economic instruments for nature and biodiversity management

The MoE relies to some extent on economic instruments to achieve its nature and biodiversity policy objectives. The main instruments used are payments (financial compensation, financial contribution, purchase of protected land), fees (access fees, deterioration fees) and fines (Table 3.6). In addition to the instruments used by the MoE, Slovakia applies tax concessions on property, payments to landowners or land users (as part of EU co-financed support for agricultural policy, regional development policy and cohesion policy), and cross-subsidies via the Environmental Fund. There are no environmentally related taxes related to nature and biodiversity. Slovakia needs to evaluate the services rendered by ecosystems with a view to making them pay.

Table 3.6. **Economic instruments used by the Ministry of Environment, 2002-10**

Type of instrument	Article under the 2002 Nature Act	Amount (1 000 EUR)	Remarks
Financial contribution	60	145	Since 2005, on request. MoE budget.
Financial compensation		10 176	Since 2003. MoE budget.
restricted land use	61	. .	
damage caused by protected species	97-102	. .	On request.
Right of first refusal	63	. .	Depends on MoE budget availability.
Entrance fees	58	. .	Proceeds go to MoE.
Deterioration fee	95	. .	Since 1994. Proceeds go to Environmental Fund.
Fines	90	2 000	Proceeds go to Environmental Fund.

Source: MoE.

StatLink http://dx.doi.org/10.1787/888932496710

The MoE grants financial compensation for restriction on land use imposed by the Nature Act and for damage to livestock caused by protected species. The level of compensation for restriction on land use is based on income loss, calculated according to a formula; 95% of beneficiaries are private forest owners.[65] For damage to livestock, beneficiaries (livestock holders) must fulfil eligibility criteria, such as having a shepherd and established fences. Compensation applies primarily to damage by large carnivores, mostly bear, wolf or lynx.[66] It may also apply to damage to farmed fish by beaver and cormorant.

Owners or users of protected land or of members of a protected species can receive a financial contribution in exchange for carrying out an agreed activity such as eradicating an invasive species in a protected area or hosting protected storks or bats.

Landowners willing to sell protected land must give the MoE the first chance to buy it, at market price. The ministry may refuse, depending on the funding available. EU funds are available under the LIFE programme to help the MoE buy or lease protected land, reducing the need for the MoE to resort to the right of first refusal.

Entrance fees apply to part of protected areas open to the public. The State Nature Conservancy sets a minimum rate for such fees, which muncipalities can decide to increase. The proceeds are collected by municipalities on behalf of the MoE (or, in the case of one national park, the Nature Conservancy). An exception is the access fee for visiting caves, which is collected by the Slovak Caves Administration on behalf of the Nature Conservancy.

A deterioration fee is charged for destruction of protected species and protected habitats, whether unapproved (in which case the fee serves as a fine) or as part of an approved infrastructure development (*e.g.* destruction of trees to build a highway). The level of the deterioration fee is based on a societal value published in the official journal of the MoE for each type of habitat, plant, animal, bird and tree (*e.g.* EUR 2 600 for a bear). The level actually charged can be higher or lower than the societal value (*e.g.* higher for a female carnivore able to bear young, lower for habitats that were previouly degraded). The proceeds of the fee go to the Environmental Fund.

Fines for violating nature legislation can be up to EUR 10 000 for physical bodies and up to EUR 30 000 for legal bodies. The proceeds go to the Environmental Fund, part of which finances inspection.

Landowners can benefit from a municipal property tax reduction on land used for nature (a protected area). Tax breaks are also granted on: *i)* biotopes such as marshes; fens, sodium-rich soil (*solonetz*), peat bogs and groves; *ii)* windbreaks; and *iii)* protection zones of water sources.

Since Slovakia joined the EU in 2004, projects on nature and biodiversity have been co-financed by EU Structural and Cohesion Funds. Beneficiaries have been the Nature Conservancy, the Caves Administration, the Slovak Environmental Inspectorate and the Slovak Environmental Agency.

Since 2007, the EU has provided support to the Natura 2000 network, though it is still a very small part of total EU support to Slovak agriculture (Table 3.7). The rate of Natura 2000

Table 3.7. **EU support to Slovak agriculture, 2007-13[a] (EUR million)**

Type of support	2007-13	Comment
Total Common Agricultural Policy (CAP)[b]	2 562	Includes EU (77%) and national (23%) co-financing
2nd axis of CAP: environment and countryside	1 242	Nearly half (48%) of total CAP expenditure
Agri-environmental measures	338	
Forest-environmental measures	25	
Natura 2000 network	11	68% on forest land and 32% on farmland
Sub-total	374	30% of CAP expenditure under axis 2

a) Planned allocation under the European Agriculture Fund for Rural Development and national co-financing.
b) Includes three axes: axis 1 refers to "improving competitiveness for farming", axis 2 to "environment and countryside" and axis 3 to "quality of life and diversification of the rural economy".

Source: EC, 2010.

payments (EUR 95/ha/year for permanent grassland, EUR 47/ha/year for forest at the highest level of protection) is often not enough, however, to compensate farmers or forest owners for income loss. Apart from these payments, there are very few payments explicitly based on specific environmental outcomes; most agri-environmental payments, for example, are based on acreage or headage.

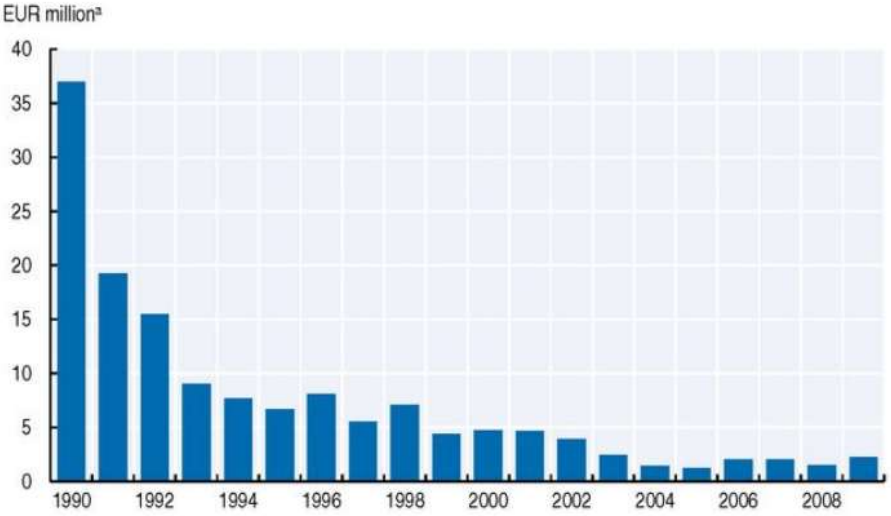
Funded primarily via pollution charges on air and water, the Environmental Fund[67] redistributes the proceeds as cross-subsidies to the whole range of environmental management activities, including nature and biodiversity.

Financing of and public expenditure on nature and biodiversity management

Nature and biodiversity management is financed directly through three main sources: the state budget (the main source), the Environmental Fund, and EU funds and programmes such as LIFE. In 2010, about EUR 56 million was allocated from the state budget to the MoE's nature department and agencies in charge of nature protection (the Nature Conservancy, the Caves Administration, a zoo and a museum). In 2005-09, annual disbursements for nature and biodiversity from the Environmental Fund amounted to EUR 6.5 million or 2% of total expenditure from the fund. Since 2004, the LIFE programme has provided EUR 1.1 million per year to finance the management and restoration of Natura 2000 sites in Slovakia.

By comparison, in recent years the agriculture sector has received EUR 366 million per year from the state budget and EU funds (Table 3.7), and forest management around EUR 24 million per year. The latter includes EUR 14 million for forest management activities by public forest enterprises and private forest owners, and EUR 10 million for the Ministry of Agriculture's forest department and affiliate agencies. Public expenditure on forest management has decreased over the last decade in both nominal and real terms (Figure 3.8).

Figure 3.8. **Public expenditure on forest management, 1990-2009**



a) At constant 1990 prices.

Source: Ministry of Agriculture.

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Nature and biodiversity management is also financed by the EU via the Common Agricultural Policy (CAP) and Cohesion and Structural Funds. In 2004-06, EUR 8 million was allocated to nature and biodiversity from EU Structural Funds, with the EU providing 75% and the state budget 25%. The total represented 5% of total EU and state funds on environmental infrastructure. For 2007-13, Structural Funds include EUR 4 million a year

for biodiversity and nature protection, and EUR 7 million a year for protection of the natural heritage. Also in 2007-13, the EU started to co-finance the Natura 2000 network, providing EUR 1.5 million a year. In addition, EUR 11 million was redirected in 2010 from the CAP first axis ("improving competitiveness for farming") to biodiversity activity through the rural development programme as part of the CAP "modulation" process.[68]

Since 2008, Slovakia has no longer been eligible for funds from the Global Environment Facility, which is intended for developing countries.

Landscape management

Landscape management is a key element of Slovakia's nature and biodiversity protection policy. It is an integral part of the Nature Act and of the concept of the territorial system of ecological stability, which includes protected landscape areas. A bill on landscape planning, aimed at improving management of Slovakia's natural and landscape assets, was prepared seven years ago but has not yet been enacted.

Slovakia's natural and landscape assets, along with its cultural assets, offer great potential for tourism development. Although tourism in Slovakia is little developed as an industry[69] (lacking a proper legal and institutional framework, as well as financial support for marketing and promotion), the spatial distribution of accommodation already overlaps considerably with the main natural tourist destinations (national parks, protected landscape areas).[70] In recent years, demand for hiking and cycling in national parks has been increasing.

The territorial system of ecological stability was designed as a binding and integral part of land use planning but it is not always put in practice. Based on the model of Switzerland,

local authorities that prepare land use plans may be required to justify their decisions with reference to environmental and landscape planning legislation. The aim is to limit consumption of agricultural and natural space and to contain dispersed urbanisation by enhancing the integration of biological and landscape diversity goals into local spatial planning. To this end, Slovakia needs a national inventory of natural landscapes, sites and monuments.

As is done (to a limited extent) in Austria, payments could be made from the tourism industry to local farmers to help them provide tourism-related services such as accommodation. Preserving small-scale farming in alpine regions would also serve to provide a desirable backdrop for ecotourism.

More generally, opportunities for co-financing of nature and landscape conservation measures as well as agri-environmental measures by the tourism sector, which benefits from the positive environmental externalities offered by these measures, should be explored.

Slovakia should consider taxation of capital gains generated by sales of agricultural and forest land to developers, as is done in Spain. Such capital gains taxes could be used to encourage greater density in existing construction areas and to slow the formation of new ones.

Developers could be required to pay a one-off tax to offset the negative impact of infrastructure development on natural habitats within a protected area, as in Portugal. The deterioration fee acts as a kind of tax, but a parliamentary decision in 2008 limits its scope to tree cutting.[71]

Following the French model, Slovakia could considering introducing a nature tax on building permits reflecting the external costs of construction on nature and biodiversity regardless of whether the construction takes place within or outside a protected area.

3. Trade and environment

As a member of the World Trade Organization (WTO), Slovakia has been actively involved in negotiations on trade and environment. It co-ordinates its positions within the EU regarding reduction or elimination of tariff and non-tariff barriers to environmental goods and services. It gained support for its proposal to add solar collectors and limestone bricks to the list of environmental goods.

3.1. Corporate environmental responsibility

Slovakia adheres to the OECD Guidelines for Multinational Enterprises, promoting responsible business conduct relating in particular to the environment. The national contact point is at the Ministry of Economy, which published the guidelines in Slovak on the ministry website. Outward investors that receive government subsidies are to commit themselves to follow the guidelines (OECD, 2010). A few companies (mostly large multinational corporations) drive efforts related to corporate social responsibility (CSR) in Slovakia. The prevailing understanding of CSR is limited to job creation and job security. CSR is often defined by what it is not (i.e. not inflicting harm) rather than in terms of positive social and environmental criteria (UNDP, 2007).

Slovakia is a member of the OECD Export Credit Group. The Slovak Export-Import Bank, EXIMBANKA SR, follows the revised OECD Council Recommendation on Common Approaches on Environment and Officially Supported Export Credits. Projects are screened using internal "principles on evaluation of export impact to the environment in the country of destination" (last updated in February 2010). The bank takes part in the ongoing discussions on export credits for climate change mitigation and water projects, and co-operates with relevant ministries, particularly the Ministry of Economy.

In 2010, EXIMBANKA SR reported two category B projects (projects with less significant impact on the environment). They were reported to the OECD and assessed by the Czech Export Credit Agency.[3] EXIMBANKA SR has signed several agreements with experts certified by the Ministry of Environment (MoE) to assess the need for environmental impact assessment (EIA) and to categorise submitted projects in accordance with the Common Approaches.

5. Official development assistance and the environment

Although Slovakia is not a member of the OECD Development Assistance Committee (DAC), development assistance has become an integral part of Slovak foreign policy. EU membership has required Slovakia to engage in the common European system of development assistance. In 2008, Slovakia graduated from the World Bank assistance operations, shifting from receiver status to that of provider of development aid.

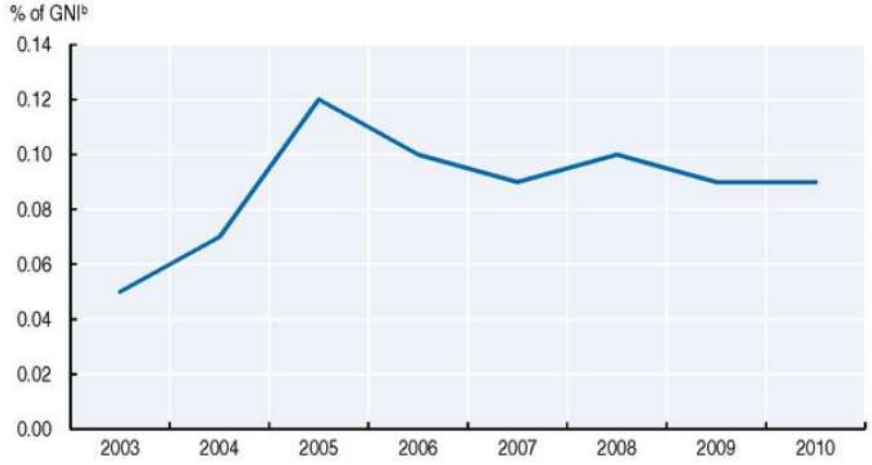
5.1. *Official development assistance*

In 2005, in keeping with EU requirements, Slovakia committed to increase the volume of its official development assistance (ODA) to 0.17% of gross national income (GNI) by 2010 and to 0.33% of GNI by 2015. Net disbursements increased between 2002 and 2005, but have since decreased. At 0.09% in 2010, the ODA to GNI ratio remains some distance from the target (Figure 4.1).

Since 2003, Slovakia has provided assistance to developing countries under the Mid-term Strategy of Official Development Assistance for 2003-08. In May 2009, the government approved the Mid-term Strategy for 2009-13.

The legal framework for provision of ODA was established by the 2007 Act on Official Development Assistance, which entered into force on 1 February 2008. It specifies that poverty reduction and promotion of sustainable development in developing countries are among the main goals of the country's ODA. The mid-term strategy, prepared for a period of at least five years, defines main principles and sectoral and territorial priorities for bilateral, trilateral and multilateral ODA. An annual program of ODA, building on the mid-term strategy, specifies priorities for a given fiscal year. It is prepared by the Ministry of Foreign Affairs and submitted to the government.

Figure 4.1. **Official development assistance, 2003-10**[a]



a) Preliminary data for 2010.
b) Gross national income.
Source: OECD-DAC (2011), *Development Aid Database*.

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The Ministry of Foreign Affairs is the national co-ordinator for ODA. The Slovak Agency for International Development Co-operation was established in January 2007 as the main

body overseeing project cycle management and administration, administration of funds, and educational and communication activities. A committee comprising the Ministry of Foreign Affairs and observers from non-government stakeholder groups evaluates projects.

Bilateral and multilateral assistance

In 2003-08, bilateral ODA focused mainly on the countries of the western Balkans, especially Serbia and Montenegro and Bosnia and Herzegovina. Projects addressing the environment included building institutional capacity concerning climate change and capacity building for implementation of Ramsar and Carpathian conventions. In 2004-09, 14% of development projects were related to environmental sustainability (notably access to safe drinking water and basic sanitation). On some projects, Slovakia co-operated with the Canadian development agency, including on financing. Slovakia has pledged EUR 9 million in fast-start financing to developing countries for climate action over 2010-12.

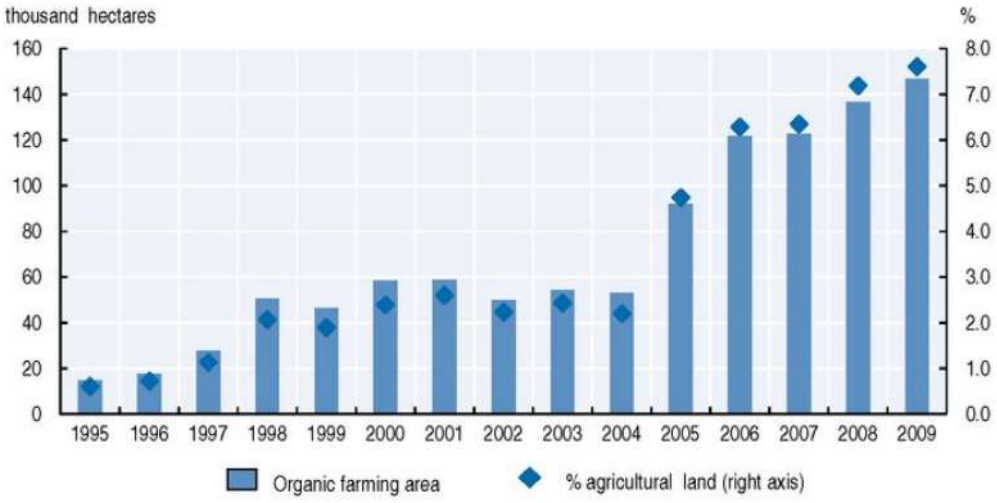
The strategy for 2009-13 defined a revised list of priority countries and sectors. ODA is being channelled to 3 programme countries[14] and 13 priority countries,[15] with the former receiving the biggest share of ODA. Infrastructure development with a positive impact on sustainable development and environmental protection is a key target of the strategy.

In 2009, multilateral contributions (mainly including contribution to the European Commission) accounted for 75% of total ODA flows. The MoE contributed EUR 143 000 to several international environmental organisations and conventions: the International Union for Conservation of Nature, the UNEP Environment Fund, CITES, the UN Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, and the Montreal Protocol on Substances that Deplete the Ozone Layer.

Organic farming

Organic farming grew over the 1990s, and by 2004 accounted for 2.2% of farmland. After 2004, with EU accession, a more substantial increase in the organic farming area occurred due to the adoption of the Common Agricultural Policy (CAP) and provision of payments supporting organic farming under EU regulations on rural development plans. Slovakia had set a target for organic farming of 7% of farmland by 2010, but passed the target in 2009 with 7.6%. More than half the area under organic farming consists of extensively managed grassland and pasture (Figure 6.5).

Figure 6.5. **Area under organic farming, 1995-2009**



Source: CCTA, FAO (2011), *FAOSTAT Database*.

3. Agricultural policy

Major policy changes were required for EU accession and membership. In the initial years of transition, in the early 1990s, despite the lack of explicit agri-environmental policy, the removal of government support for purchased farm inputs (*e.g.* input subsidies) and other production-related support (*e.g.* administered prices) contributed to a significant reduction in the intensity of farm production. That policy change also resulted in reducing pressures on the environment, as evidenced by a positive trend for many agri-environmental indicators (*e.g.* nitrogen and phosphorus balance, pesticide use, water use, ammonia emissions).

Agri-environmental payments were introduced in 1997 and organic farming in 1991. Policies to encourage sustainable farming practices and environmental protection were further developed during the EU membership process. The three EU pre-accession funds[2] included support for environmental purposes. Environmental protection has been a key objective in Slovakian agriculture since adoption of the CAP upon accession in 2004. Policies under the CAP are to be phased in by 2013.

Direct payments and incentives for environmental protection

Under CAP Axis 1 (improving competitiveness of the farming sector), a harmonised rural development programme provides for investment subsidies to Slovakian farmers (Table 6.1). Together with the fuel tax rebate,[3] such input subsidies may affect production decisions and lead to misallocation of resources. Nevertheless, relative to all direct payments, the share of payments based on input use decreased from 26% in 2005 to 18% in 2010 (Table 6.2).

Table 6.1. **Direct payments, by programme**

EUR million

Programme	Funding	2004	2005	2006	2007	2008	2009	2010	% 2010
SAPS[a]	EU	81	91	113	155	172	221	260	38
CNDP[b]	National	100	68	61	106	169	102	67	10
Sugar premium	EU	–	–	13	14	16	37	–	–
Fuel tax rebate	National	21	24	26	29	29	30	16	2
HRDP[c]									
Technical assistance	EU/National	–	1	15	6	1	–	11	2
Investment in agriculture	EU/National	6	60	61	93	44	9	106	16
LFA payments[d]	EU/National	65	77	80	87	102	94	102	15
AEPs[e]	EU/National	3	29	57	53	85	122	115	17
Afforestation of farmland	EU/National	–	–	7	–	6	14	–	–
Total payments		275	349	433	542	624	629	676	100

a) Single area payment scheme.
b) Complementary national direct payments.
c) Harmonised rural development programme.
d) Payments to less favoured areas.
e) Agri-environmental payments.

Source: Ministry of Agriculture.

At the same time, the share of payments based on non-current (historical) parameters increased from 45% of total payments in 2005 to 54% in 2010 (Table 6.2). Although this category of payments is decoupled from current agricultural production, it does not target specific environmental outcomes. It includes the single area payment scheme (SAPS), a key element of CAP support, which is to rise progressively to reach 100% of the EU15 level by 2013. In Slovakia, cross-compliance requirements[4] fully apply to the SAPS only from 2011.

Table 6.2. **Direct payments, by category of support**

EUR million

Basis of support	Purpose of payment	2005	2010	Comment
Commodity output		–	–	There is no such payment in Slovakia
Input use		***86***	***125***	
	Fuel tax concession	24	16	National payment
	Other variable input subsidies	2	–	Water subsidies and credit subsidies
	Investment subsidies	60	106	For farm buildings and machinery (HRDP axis 1)
	Insurance subsidies	1	4	
Current area, headage, revenue, income		***89***	***167***	
	Area payments (CNDP)	62	7	For arable crop, hops and tobacco
	Sugar premium	–	13	Financed from EU funds
	Headage payments (CNDP)	6	62	For cattle, sheep and goat
	Basic scheme (AEP)	6	27	For environmental activities going beyond the code of good farming practices
	Soil erosion prevention (AEP)	5	24	For practices reducing soil erosion risk
	Organic farming (AEP)	*8*	*29*	
	Arable land conversion (AEP)	1	5	One-off payment for land converted to grassland

Non-current area, headage, revenue, income		***151***	***362***	
	Single area payments	84	260	Flat-rate payment (EU funds)
	Less favoured areas	67	102	For areas with less favoured production conditions (HRDP axis 2)
Payments based on non-commodity criteria		***8***	***22***	
Resource retirement		–	–	
	Afforestation of farmland	–	–	For farmland converted to forest
Non-commodity outputs		***8***	***21***	
	Biodiversity (AEP)	8	21	For protection of high-value biotopes, including Natura 2000 sites
Total		***333***	***676***	

CNDP: complementary national direct payments; AEP: agri-environmental payments.
HRDP: harmonised rural development programme.
Source: OECD; PSE/CSE Database 2010.

StatLink http://dx.doi.org/10.1787/888932496881

The category also includes payments to less favoured areas. The main objective is to maintain farming in such areas. The payments have an income objective: the less favourable the conditions for farming, the higher the payment. Less favoured areas are mountainous or hilly; they often represent key elements of the landscape and may have high recreational value. It is assumed, therefore, that maintaining farming in these areas provides landscape stewardship. But no specific environmental objectives are set.

The share of payments based on current parameters (area, headage, income, revenue) remained relatively unchanged, slightly decreasing from 27% of total payments in 2005 to 25% in 2010 (Table 6.2). This category includes complementary national direct payments (CNDPs). During the transition, Slovakia (like other accession countries) can complement the SAPS with CNDPs. In 2010, the two accounted for nearly half of budgetary support (Table 6.1). CNDPs are often tied to production of specific commodities, thereby creating incentives for more intensive forms of production.

The category also includes agri-environmental payments (AEPs), which require farmers to reduce the use of inputs and/or take up environmentally friendly farming practices. AEPs are provided for specific farming practices within programmes to which farmers may apply voluntarily. Though designed to address environmental issues, AEPs in most cases are targeted not to particular (measurable) environmental outcomes, but to specific farming practices, and the objectives are set in terms of area under those practices, as is the case in most other EU countries.

Last but not least, Slovakia uses payments based on non-commodity criteria, though to a limited extent. Their share in total payments increased from 2% in 2005 to 3% in 2010 (Table 6.2). This category groups payments to plant forests on agricultural land and to protect high value biotopes (Natura 2000 sites). They are better targeted to environmental outcomes than some of the other types of payment.

The payments related to Natura 2000 sites are the only AEP programmes in which it is compulsory for eligible farmers to participate. This is because Natura sites are designated with the application of EU criteria, and because farmers operating in these areas have to comply with the restrictions imposed.[5] On the other hand, farmers have to apply for the payments, which are not granted automatically.

Payments under CAP Axis 2 (improving the environment and the countryside) represent the largest, and increasing, part of expenditure in the harmonised rural development programme. They include payments for less favoured areas, AEPs and payments for farmland afforestation (Table 6.1).

Agri-environmental measures

In 2004-06, a rural development plan, jointly funded by the national budget and the EU, provided for agri-environmental programmes including basic area payments conditional on adoption of environmental farm management practices; support for conversion of arable land to permanent pasture; and payments for organic farming (Table 6.3). Basic area payments were provided per hectare of arable land, permanent cropland (*e.g.* orchards, vineyards) and/or permanent grassland. Fixed rates were set for each category. In addition, acreage payments were provided for conversion to organic farming, where lower rates continued to be granted after the conversion period. Payments were also provided to prevent or mitigate soil erosion and for conservation of high-value biotopes on grassland.

Agri-environmental programmes for 2007-13 have been strengthened and expanded (Table 6.3). They primarily aim at:

- more extensive forms of farming, for which the basic scheme sets standards;[6]
- organic farming (with stricter limits for farming practices than under the basic scheme);
- integrated production in vineyards, orchards and vegetable production;
- protection from soil erosion on arable land, in vineyards and in orchards;

- conversion of arable land (mainly in less favoured areas) into grassland with extensive forms of production;[7]
- protection of biotopes in semi-natural and natural grassland (rich in species);
- breeding and preservation of endangered animal species;
- protection of selected bird species biotopes (in Natura 2000 sites).

Table 6.3. **Agri-environmental payments, 2004-10**

EUR million

Programme	2004	2005	2006	2007	2008	2009	2010	% 2010
Basic scheme	–	6	13	14	27	34	27	23
Erosion prevention	–	*5*	*13*	*15*	*24*	*31*	*24*	*21*
Arable land	–	5	13	15	23	31	23	20
Orchards	–	–	–	–	–	–	–	–
Vineyards	–	–	–	–	–	–	–	–
Conversion of arable land into grassland	–	1	3	4	6	8	5	5
Protection of biotopes	–	*8*	*15*	*9*	*10*	*21*	*21*	*19*
Grassland	–	8	15	9	8	17	19	16
Birds	–	–	–	–	2	3	3	2
Endangered farm animal species	–	–	–	–	–	1	1	1
Integrated production	–	–	–	–	4	6	8	7
Organic farming	3	8	12	10	14	20	23	20
Organic farming and biotope protection	–	–	–	–	–	2	6	5
Total payments	3	29	57	53	85	122	115	100

Source: OECD, PSE/CSE Database 2010.

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