

Chapter 11

Green Growth¹

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Mexico has to confront difficult trade-offs in pursuing its economic, social and environmental goals. In recent years, environmental issues have been placed higher on the political agenda. Significant progress, for example, has been made in adopting voluntary targets for reducing emissions of greenhouse gases. However, there is still considerable scope to rebalance the policy mix and to promote the transition to a socially inclusive form of green growth in a more effective, efficient and equitable manner. A key challenge is to reform the subsidies to energy and agriculture, which represent a heavy burden on the government budget and are highly regressive. The new administration has shown commitment to reviewing and reducing these distortive subsidies which could make resources available to support the poor much more effectively. Moreover, Mexico is one of the most important countries globally in terms of biological diversity; successful management of the country's natural assets is important not only for the sustainability of its economy and the well-being of its people, but also for the planet.

¹ This chapter is based on OECD (2013), *OECD Environmental Performance Reviews: Mexico 2013*, OECD, Paris.

Green growth policies can help to address some of the major economic challenges many countries face today – low growth, high unemployment, budget deficits – while also reducing environmental pressures that could undermine the sustainability of economic development in the future. Recognising the need to take action, Mexico has assigned high priority to green growth. It has significantly strengthened its national environment policies and demonstrated impressive international leadership in areas such as climate change and water management.²

Mexico's commitment to green growth is a response to the complex nexus of economic, social and environmental challenges it faces: strengthening long-term growth, reducing poverty and inequality which remain among the highest in the OECD, and reducing environmental degradation that imposes significant costs on the economy. The cost of environmental degradation and natural resource depletion in Mexico is estimated to represent 7% of GDP in 2010. Addressing these challenges requires Mexico to develop a growth strategy that includes investments in environment-related infrastructure; establishment of pricing mechanisms that provide incentives to use natural resources and materials more efficiently; and a policy framework that supports deployment of clean technology. Wider dissemination of efficient technology is particularly needed to help boost Mexico's productivity, which lags behind that of other OECD countries.

In striking a balance between Mexico's economic, social and environmental goals, there has been a tendency to use indirect subsidies to help the poor – for example, setting lower prices for energy and water – rather than direct social transfers. This approach has not always proved an effective way of achieving its main policy goals. Thus there is considerable scope to rebalance the policy mix and to promote the transition to a socially inclusive form of green growth in a more effective and efficient manner.

² In particular, Mexico made green growth a priority during its presidency of the G20 in 2011-12. The country hosted the inaugural conference of the Green Growth Knowledge Platform, which is intended to strengthen analysis of economy-environment links, and established a Centre for Research on Sustainable Development and Climate Change. Mexico was also one of the first countries to apply the OECD set of green growth indicators to its domestic situation. The OECD supported this work by helping mainstream green growth in structural policy measures in the context of the G20 framework, and by contributing to a toolkit to help developing countries advance green growth policies.

Climate change

Mexico is particularly vulnerable to climate change: 15% of the country, 68% of the population and 71% of GDP are highly exposed to climate change risk as indicated by the Ministry of Environment. In addition to increased temperatures, potential impacts include reduced rainfall in the north, storms and heavy seasonal rainfall in the south, increased hurricane activity and intensity, and a sea level rise of 20 cm by 2050. This vulnerability provides a strong incentive to participate in the global effort to mitigate greenhouse gas (GHG) emissions – especially given that in 2008 Mexico had the world's 13th highest greenhouse gas (GHG) emissions, excluding land use, land-use change and forestry (LULUCF). Measures taken in Mexico could furthermore provide significant support to the broader international effort.

In recent years, Mexico has assigned a high political priority to tackling climate change. It has substantially strengthened the institutional framework for addressing climate change, increased resource allocation, and promoted greater public awareness. Here, the Inter-Ministerial Commission on Climate Change has been a key driver. It developed the 2007 National Strategy on Climate Change and the Special Programme on Climate Change (PECC) 2009-12. By June 2012, nearly 95% of the PECC mitigation target and three-quarters of its general adaptation goals had been achieved. These efforts were consolidated by adoption in June 2012 of the General Law on Climate Change; the law confirmed Mexico's aspirational targets of reducing GHGs to 30% below a business-as-usual scenario by 2020, and to 50% below 2000 levels by 2050, conditional on international financial support. In its Pact for Mexico, the new administration recognised the need to tackle climate change by reducing dependence on fossil fuels and promoting renewable energy (commitment 49). The Pact also highlights the need to pursue an energy reform, in which the introduction of energy efficiency measures will be key.

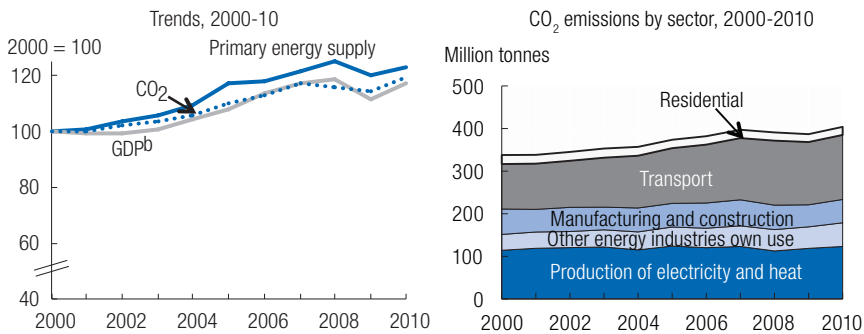
Mexico has also shown great leadership in, and a strong commitment to, supporting international efforts to address climate change. In 2010 it hosted the 16th Conference of the Parties to the UN climate change convention and was instrumental in brokering adoption of the Cancun Agreements. As a non-Annex I country, Mexico does not have binding GHG reduction targets under the Kyoto Protocol. But in adopting voluntary emission reduction targets for 2012, 2020 and 2050, it has provided an important example for both developed and developing countries. Notably also, Mexico submitted four National Communications under the Convention, the only non-Annex I country to do so.

Despite these important initiatives, reducing GHG emissions remains a major challenge. Between 2000 and 2008, GHG emissions increased by 13% while energy-related (for the most part CO₂) emissions increased by 17%, mainly due to urban population growth, economic growth and the associated increased demand for transport. While in 2009 Mexico had the second-lowest CO₂ emissions

per capita in the OECD – reflecting its relatively low income level – the energy and carbon intensities of its economy have been increasing over the past decade (Figure 11.1). Without additional policy measures, total GHG emissions could increase by 70% by 2050, compared to the 2000 level. It will be important to have a mechanism in place to review and adapt policies based on regular and independent assessment of progress.

The transport sector is the largest energy consumer and the fastest-growing source of related CO₂ emissions. Transport energy use rose by 43% over 2000-10, largely because of growth in road traffic. In the past decade, the motorisation rate almost doubled, rising faster than in any other OECD country over that same period. Factors are increasing income levels; a large supply of inexpensive vehicles (many of them imported, and not fuel-efficient by international standards); the lack of fuel pricing incentives; urban sprawl; and the lack of alternative transport modes. Programmes to promote sustainable urban transport have been successfully implemented in several big cities, as further discussed below. However, they would need to be significantly scaled up to have an impact on car use, and it will take many years to overcome the lock-in effect of the way cities are currently organised.

Figure 11.1. CO₂ emissions¹



Notes: 1. CO₂ emissions from energy use only. Excludes international marine and aviation bunkers. Sectoral approach.

2. GDP at 2005 prices and purchasing power parities.

Source: OECD (2011), *OECD Economic Outlook*, No. 90; OECD-IEA (2012a), *CO₂ Emissions from Fuel Combustion*; OECD-IEA (2012b), *Energy Balances of OECD Countries*.

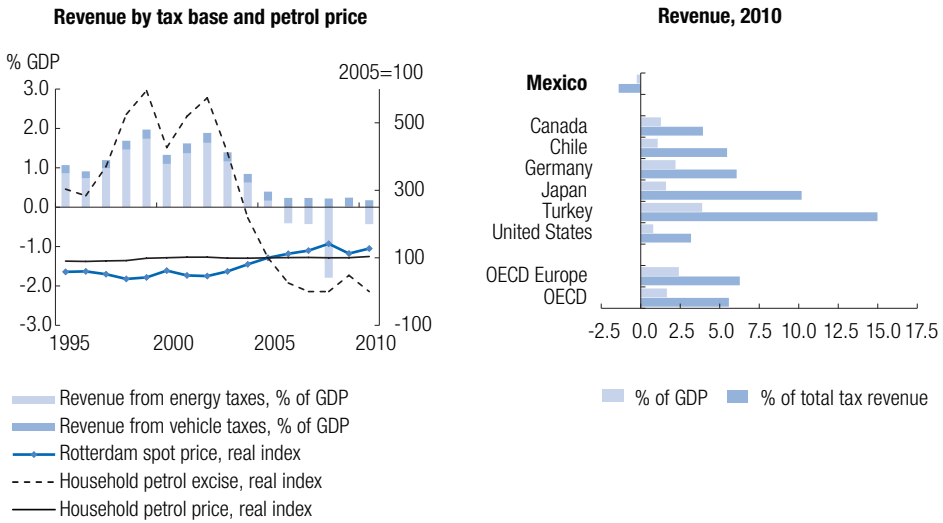
Achieving the 2020 and 2050 targets will require a substantially strengthened policy mix. The recently adopted Law on Climate Change provides an opportunity to develop a comprehensive package of measures that target the main sources of GHG emissions. In particular, the price signals needed to provide adequate incentives to reduce GHG emissions should be significantly strengthened.

Getting the prices right

Internalising environmental costs in the price system is essential for tackling climate change and other environmental problems. Extending the use of environmentally related taxes and reforming environmentally harmful subsidies could contribute to achieving this objective. These actions would also help rebalance Mexico's tax structure, by raising taxes other than those related to oil production and broadening the tax base. There are important opportunities in the transport sector, where prices of transport fuels are regulated via a price-smoothing mechanism; this results in an implicit subsidy at times of high world oil prices (Figure 11.2). This subsidy represented net expenditure of 1.2% of GDP in 2011, despite the fact that the government progressively raised fuel prices in the late 2000s. Energy subsidies overall, including those for electricity consumption in the agricultural and residential sectors, averaged about 1.7% of GDP per year over 2005-09. This policy is costly and stimulates energy use. Applying positive and higher excise duties on fossil fuels would send a price signal about the environmental costs of fuel use; help dampen the rapid rise in vehicle use; and generate significant revenues that could be used to support Mexico's wider policy agenda.

A major obstacle to removing environmentally harmful subsidies and broadening the use of environmentally related taxes is concern about the impacts on poor and vulnerable groups. Given the high levels of poverty and inequality in Mexico (see Chapter 2 on combating poverty and inequality), there are understandable concerns about adopting measures that generally have a relatively higher impact on the poor. However, there is evidence that subsidies in the energy and agricultural sectors that have a negative impact on the environment benefit the rich more than the poor (Figure 11.3). The poorest 20% of the population captures only 11% of residential electricity subsidies and less than 8% of transport fuel subsidies; similarly, 90% of agricultural price support and 80% of electricity subsidies for water pumping benefit the richest 10% of farmers. In 2008, energy subsidies cost more than twice the amount spent on anti-poverty programmes. These inefficient subsidies could be replaced by direct social spending with a much greater benefit targeted to the poor. In a welcome move, the new administration has committed to comprehensively review Mexico's subsidy policy, in particular in the energy and agricultural sectors, to make the tax system more effective, transparent and progressive. Experience from other countries indicates that subsidy reforms are not easy (compromiso 73), but progress can be made, and the benefits realised, with the right approach (Box 11.1). Successful reforms have often been accompanied by increases in direct social transfers and other measures to better target support to the poor. A proactive and clear communication campaign is also essential, to build public support and raise awareness about the benefits of reforms for the poor. While the Ministry of Finance often leads such reforms, close co-operation

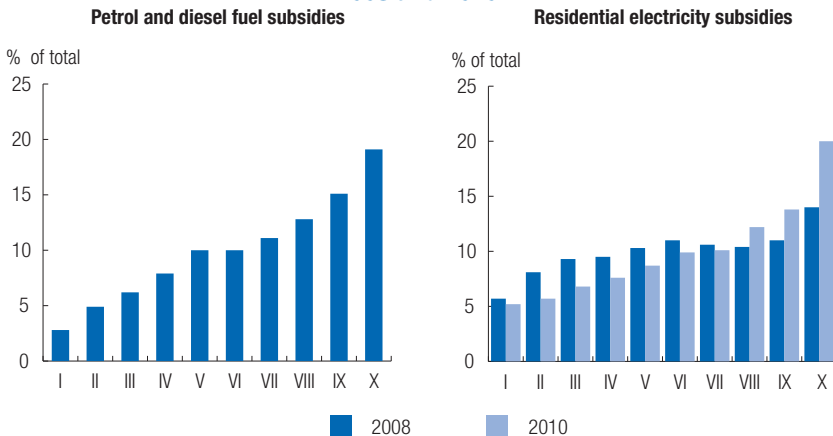
Figure 11.2. **Environmentally related taxes**



Source: OECD-EEA (2012), OECD/EEA database on Instruments Used for Environmental Policy and Natural Resources Management; OECD-IEA (2012c), Energy prices and taxes.

with the ministries of energy, the environment and social development can also be critical for ensuring the identification and implementation of a successful reform package. Programmes in Mexico, such as the one to replace electricity subsidies for pumping irrigation water with direct cash transfers in selected water basins, illustrate the way forward and should be scaled up.

Figure 11.3. **Distribution of energy subsidies across income deciles, 2008 and 2010**



Source: Ministry of Finance and Public Credit (2010, 2012), *Distribución del pago de impuestos y recepción del gasto público por deciles de hogares y personas*.

**Box 11.1. Reforming fossil fuel subsidies in Indonesia
to better target support to the poor**

Indonesia, India, Colombia, Ghana, Malaysia and Turkey are among the countries that have taken important measures in recent years to reform fossil fuel consumer subsidies, even if a number of them still have a way to go to achieve their objectives. These countries have made progress, though at times with difficulty given rising world oil prices and proximity to elections. Their experiences underline the importance of paying close attention to the implementation process and the package of accompanying measures.

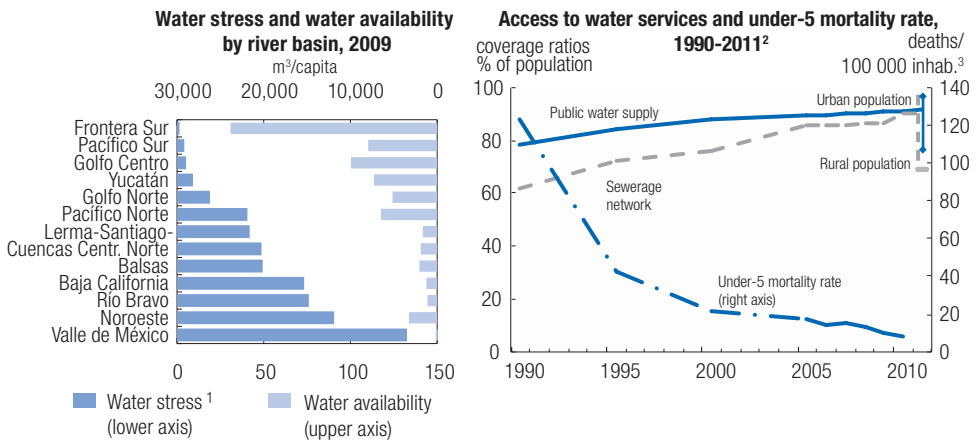
In 2005 the Indonesian government, concerned about the increasing pressure that fuel subsidies were placing on the state budget, undertook two large fuel price hikes. The price of diesel fuel doubled and that of kerosene nearly tripled. To mitigate the impact of the reform on the poor, the price increases were accompanied by a number of welfare programmes such as cash transfers and improved health services, as well as a public information campaign to raise awareness about the compensatory measures. A new unconditional cash transfer (UCT) was established to distribute monthly payments of USD 10 during a period of six months to 19 million low-income individuals – about 31% of the population. Indonesia's poverty rate was 12.5% in 2011. Quantitative and qualitative assessments indicate that the UCT performed well, though the targeting was suboptimal. The reduction in fossil fuel subsidies saved the government USD 4.5 billion in 2005 and a further USD 10 billion in 2006. The associated cash transfer programme cost about USD 2.3 billion in addition to administrative costs. In 2008, the government also stopped providing subsidies to large industrial electricity consumers and announced the gradual phasing out of subsidised fuel to private cars. However, subsidies were provided to public transport and motorcycles. Diesel and LPG prices were increased by more than 20% during the same year, with cash transfers and other social programmes mitigating the impact on low-income households. Later in the year, the government reduced retail prices of gasoline and diesel following the decline in world oil prices.

While these reforms have been steps in the right direction, fuel subsidies remain high in Indonesia. An attempt by the government to lower fuel and electricity subsidies failed to secure parliamentary approval in May 2012. However, the government was authorised to raise the price of subsidised fuel if the world oil price exceeded a certain threshold. The lesson from these experiences is that subsidy reform can be successful when accompanied by social protection measures targeted at the poor and by effective communication campaigns.

Source: OECD (2012a), OECD Economic Surveys: Indonesia 2012, OECD; OECD (2011a), OECD Economic Surveys: India 2011, OECD; Beaton, C. and L. Lontoh (2010), "Lessons Learned from Indonesia's Attempts to Reform Fossil-Fuel Subsidies" International Institute for Sustainable Development; Laan T. et al. (2010), "Lessons Learned from Brazil's Experience with Fossil-Fuel Subsidies and their Reform", Global Subsidies Initiative, International Institute for Sustainable Development, Winnipeg; Olken B. et al. (2008), "Indonesia Community conditional Cash Transfer Pilot Program", concept note, World Bank May.

Wider use of market-based instruments, in addition to promoting more efficient use of energy and other resources, would help finance much-needed environmental infrastructure. Investment in water infrastructure nearly tripled between 2000 and 2010, enabling Mexico to exceed the water and sanitation Millennium Development Goals. However, substantial additional investment will be needed to bring the provision of environmental services up to the levels in other OECD countries (see also Chapter 14 on water reform). Mexico has made some progress in implementing water charging systems; these could provide important incentives for efficient water use, particularly in those areas subject to high levels of water stress (Figure 11.4). Abstraction charges now vary according to water availability, and pollution charges are based on the status of water bodies and type of pollutants, thereby reflecting the polluter-pays principle. However, these charges have provided only limited incentive to reduce water losses and improve efficiency of water use. Water abstraction for agriculture is still virtually free of charge. Mexico spends more on subsidies to partly cover the cost of electricity for water pumping than it does to improve irrigation infrastructure (see also Chapter 13 on the agriculture sector and rural areas). Tariffs for public water services remain relatively low and do not allow service providers to

Figure 11.4. **Progress and challenges in the water sector**



Notes: 1. Volumes of water granted in concession as percentage of renewable water resources.

2. 2011: preliminary data.

3. Number of deaths of children under age 5 due to diarrhoeal disease per 100 000 children under 5.

Source: Comisión Nacional del Agua (CONAGUA) (2012), *Statistics on Water in Mexico*; Ministry of the Environment and Natural Resources (SEMARNAT) (2012), *Sexto Informe de Labores, Mexico*.

cover their costs. The private sector has played a limited role in the water sector, not always improving the efficiency, or reducing the cost, of service provision. The new administration has pledged to “rethink” Mexico’s water management, including investment in water-related infrastructure.

Limited municipal institutional capacity and the large role of informal workers (*pepenadores*) in the waste sector constitute a barrier to wider implementation of waste charges. In some cities, including the capital, household waste charges are prohibited by law. While there is wide social resistance to paying for formal waste collection, a large part of the population pays informal waste pickers to remove waste – and in some cases, these payments are higher than municipal waste charges would be. Formally involving the *pepenadores* is necessary to assure implementation of effective municipal waste management systems, as well as to improve the social, health, and living standards of these workers. Governance in the water and waste management sectors needs to be strengthened in parallel with increased financing. The recent Pact for Mexico considers improving waste management (commitment 53) and investing in waste-related infrastructure.

Biodiversity and forests

Mexico is one of the most important countries globally in terms of biological diversity. It is home to 10-12% of the world’s biodiversity, and is one of 17 “mega-diverse” countries. Mexico has been ranked in the top five on a number of biodiversity indicators, including reptiles, mammals, amphibians and flora. Forests cover one-third of the land area and provide a home for 11 million people living in extreme poverty. How Mexico manages these natural assets is important not only for the sustainability of its economy and the well-being of its people, but also for the planet.

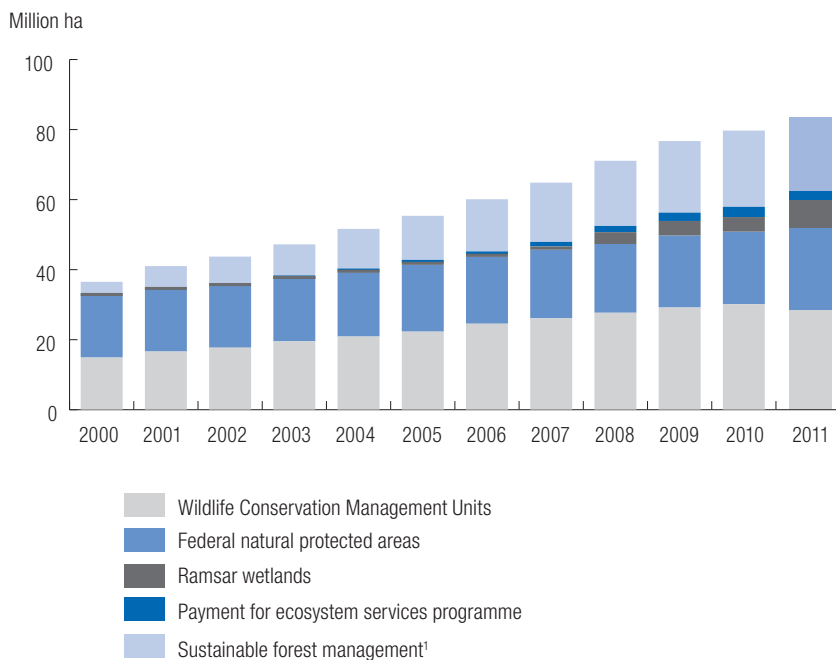
Between 1976 and 2007, the area covered by tropical forests declined by 10%, though the rate of deforestation has been significantly reduced over the past decade, particularly for primary forest. Around two-thirds of forests are fragmented, which results in reduced quality and quantity of wildlife habitats. More than 2 600 species are listed under different categories of threat, and the share of known mammal and bird species threatened is high compared to levels in other OECD countries. The conversion of natural ecosystems to crop and livestock production, either directly or indirectly, continues to be the main driver of deforestation and land use change. Secondary drivers include urban expansion and construction of infrastructure for roads, telecommunications, ports, tourism, energy supply lines, and pipes and ducts. The main driver of forest degradation is forest fire, with illegal logging, fuel wood collection and natural disasters exerting further pressure.

Over the past decade, Mexico has developed a number of strategies and programmes to promote conservation and sustainable use of biodiversity and forests. The environmental axis of the 2007-12 National Development Plan included several objectives related to biodiversity and forests. The budget of the National Forestry Commission has nearly tripled in real terms since 2002. Significant progress has been made in developing more comprehensive monitoring and reporting frameworks to support policy development and implementation. These policy and institutional reforms provide a good basis for better management of forests and biodiversity, though further efforts are needed to support effective policy implementation.

Mexico has a wide set of policy instruments to promote the conservation and sustainable use of biodiversity and forests. It is largely dominated by subsidies, many of which also aim to improve the conditions of local indigenous communities living in forests. Federal protected areas and their associated resources have increased significantly over the past decade, and now cover 12.9% of the national territory (see Figure 11.5). The National Ecological Land Use Plan (ELUP), adopted in 2012, is an important step forward in the conservation and sustainable use of ecosystems. This instrument establishes land use planning and zoning principles to promote development that simultaneously protects and conserves the environment. The number of ecological land use plans adopted at various geographical scales increased from 12 in 2000 to 85 in July 2012. However, further measures should be taken to better co-ordinate ecological land use plans with the development plans of states and municipalities.

Mexico has pioneered several economic instruments for the conservation and sustainable use of biodiversity (Figure 11.5). The national programme of payment for ecosystem services (PES) under ProÁrbol (the federal umbrella programme that promotes sustainable forestry) covers 3.25 million ha of forests and represents one of the largest PES programmes in the world. It is expected to be strengthened under the new administration. Other examples of economic instruments include forms of biodiversity offsets for projects involving deforestation – the Forest Land Use Change mechanism; reforestation programmes; controls on illegal hunting of wildlife; and fishery buybacks for more sustainable fisheries management. Some of these have produced positive results (*e.g.* reforestation), but there is insufficient evidence to fully evaluate the effectiveness of others (*e.g.* controls on illegal hunting of wildlife). Some can be refined to more cost-effectively attain their environmental goals (*e.g.* PES and the Forest Land Use Change mechanism).

A few voluntary agreements have also been established in relation to biodiversity. About 10% of all coffee producers participate in a green certification agreement. However, there is considerable scope to develop such approaches further. For example, while progress has been made in timber certification – which can also help combat illegal logging – procedures should be strengthened

Figure 11.5. **Total area under conservation and sustainable use, 2000-2011**

Note: 1. Including the PROCYMAF (improvement of forest ecosystem productivity) and PRODEFOR (forest development) programmes.

Source: SEMARNAT (2012), *Sistema Nacional de Indicadores Ambientales*.

to consolidate the national market for certified products. Efforts to promote sustainable tourism, including eco-tourism certification, should be enhanced to help reduce the environmental footprint of this large and growing sector. More generally, opportunities exist to further engage the private sector in conservation and sustainable use of forests and biodiversity.

Conservation and sustainable use of biodiversity will not be achieved solely by policy action in the environment sector. It will also be necessary to reform policies in other sectors, such as agriculture, tourism, fisheries and energy, that exert significant pressures on ecosystems and biological resources. For example, a variety of support programmes for farmers contribute to deforestation and the intensification of agricultural production. While agricultural subsidies have been reduced, a large share of agricultural support programmes continues to comprise production-related measures, which are the most environmentally damaging. These are also inefficient in reaching poorer farmers, with the vast majority of production-linked agricultural support in Mexico accruing to the richest 10% of farmers (see also Chapter 13 on the agriculture sector and rural areas). There has

been only limited uptake of agri-environment payments that could support more environment-friendly farming practices. Given the environmental and economic significance of biodiversity, establishing an inter-secretariat commission for biodiversity along the lines of the one for climate change could support a more focused and coherent approach for promoting biodiversity conservation and sustainable use.

Economic opportunities of green growth

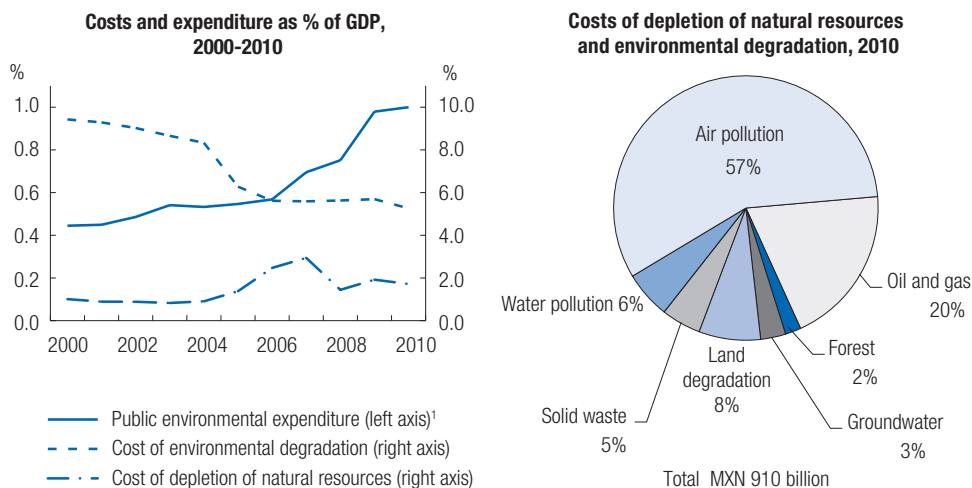
Well-designed environmental policies can create new markets, investment opportunities and jobs. Between 2000 and 2010, public environmental expenditure³ more than doubled in real terms, growing from 0.4% to 1.0% of GDP (Figure 11.6). The growth was driven by increased investment related to wastewater, soil and groundwater, and spending on biodiversity and forests. However, these investments remained small by comparison with the cost of environmental degradation and depletion of natural resources, which was estimated at 7% of GDP in 2010, down from 10% in 2000. Investment in waste management fell by one-third, even with the pressing need to develop a sound waste management system.

Shifting to a greener growth path will require significant investment in transport infrastructure and better integration of transport and urban planning policies. Investment in transport infrastructure increased significantly, from 0.3% of GDP in 2000 to 0.7% in 2010, but it remained just below the OECD average. In 2008, Mexico created the Federal Support for Mass Transit Programme (PROTRAM) to improve the efficiency of urban transport systems. PROTRAM, complemented with loan programmes, has fostered the growth in rail passenger traffic in metropolitan areas in recent years. However, investment in rail accounted for only 8% of total investment in transport infrastructure in 2010, a proportion well below that in other OECD countries, and road transport remains the predominant mode of freight and passenger transport.

Programmes to promote energy efficiency and renewables have the potential to create new market opportunities (see Chapter 12 on energy). In addition to energy performance standards and labels, Mexico has adopted a range of programmes to improve energy efficiency in the residential sector, including the Sustainable Light Programme to replace around 47 million incandescent bulbs with compact fluorescent bulbs; the Home Appliance Substitution Programme

3. Investment and current expenditure of federal (including public enterprises), state and local governments. Includes expenditure on: i) pollution abatement and control, covering air protection, waste and wastewater management, protection and remediation of soil and groundwater, and other environmental protection activities (R&D, administration, education); and ii) biodiversity and landscape protection. Excludes expenditure on water supply.

Figure 11.6. **Environmental expenditure and costs of depletion of natural resources and environmental degradation**



Note: 1. Investment and current expenditure of federal (including public enterprises), state and local governments (municipalities since 2003). Includes expenditure on: i) pollution abatement and control, covering: air protection, waste and wastewater management, protection and remediation of soil and groundwater, and other environmental protection activities (R&D, administration, education); and ii) biodiversity and landscape protection. Excludes expenditure on water supply.

Source: National Institute of Statistics and Geography (INEGI) (2012), *Sistema de Cuentas Nacionales de México: Cuentas económicas y ecológicas de México, 2006-2010*, INEGI, Aguascalientes.

to replace existing refrigerators and air conditioners with new, more energy-efficient models; the promotion of solar water heaters and efficient stoves; and the Green Mortgage Programme, which provides financial assistance to low-income buyers of energy-efficient homes. However, such subsidy-based instruments would be more effective, and less necessary, if the current subsidies to energy use were reduced or removed.

In 2010, Mexico achieved the largest absolute increase in renewable energy investment in Latin America. Investment in renewables, mainly wind but also geothermal, more than quadrupled to reach USD 2.3 billion in 2010. This growth followed adoption of the Law on Use of Renewables and Financing for Energy Transition and its implementing programme, which set a target of raising renewables-based power capacity (excluding large hydro) to 7.6% by 2012. Measures associated with high electricity prices for industry and technological developments have resulted in a significant expansion of wind power capacity for private self-generation. Despite a fall in investment in 2011 (to USD 0.2 billion), the renewables market is expected to strengthen from 2012 onwards.

However, much potential remains to be tapped, and the share of renewables in electricity production actually declined over the past decade (from 20% of electricity production in 2000 to 18% in 2010). The new administration wants to move toward a low-carbon economy by promoting investment in research and development on renewable energy. Fostering deployment of renewables will require better integration of environmental and social externalities in the cost of electricity, further grid development, and steps to address land compensation issues.

The need to boost the productivity and competitiveness of the economy through innovation has been recognised in Mexico for some time. It has been reiterated by the new government. However, the frameworks for innovation in general, and for environmentally related innovation in particular, have not been effective, and Mexico has fallen short of its objectives in this area. It has the least R&D-intensive economy in the OECD and one of the lowest private sector shares in gross expenditure on R&D. Innovation outcomes have been weak, though there have been somewhat higher levels of patenting activity for some environmental technologies and renewables. A widespread preference for imported technology has hindered technology diffusion and transfer to Mexican firms, particularly small and medium-sized enterprises.

OECD Key Recommendations

- Gradually replace the diesel and petrol price-smoothing mechanism with an excise tax on transport fuels; introduce excise duties on other energy products; differentiate the excise tax rates to reflect the environmental externalities associated with use of these products, including their contributions to greenhouse gas (GHG) emissions and local air pollution; where needed, provide social transfers for those adversely affected by increased energy prices.
- Regularly assess the environmental, social and economic impacts of existing and proposed direct and indirect subsidies in an integrated way, with a view to improving transparency and identifying trade-offs and subsidies that could be removed, reduced or redesigned; replace perverse subsidies to energy use, agriculture and fisheries with targeted cash transfers to low-income households and small farmers (*e.g.* building on the *Oportunidades* programme).
- Further develop sustainable urban transport systems, by scaling up and rolling out investment in low-carbon mass transit and strengthening regional and local capacity for development of integrated transport and urban planning policies.
- Take all necessary measures to implement the General Law on Climate

Change; clarify the domestic emission reduction target and define an indicative allocation among sectors; identify least-cost ways to achieve the target within sectors and in general; ensure that targets and measures are adjusted on the basis of systematic, regular and independent assessments of progress; publish annual progress reports, and a GHG emission inventory at least every two years.

- Strengthen economic and social analysis of biodiversity to support implementation of more efficient and effective policies; review the efficiency and effectiveness of economic instruments for the conservation and sustainable use of biodiversity and forests.
- Strengthen innovation capacity, including by greater support for higher education, international co-operation in science and technology, and public-private partnerships; strengthen the capacity to absorb and adapt cleaner technology, particularly in small and medium-sized enterprises.

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