

Working Together Towards Sustainable Development

THE OECD EXPERIENCE



© OECD, 2002.

© Software: 1987-1996, Acrobat is a trademark of ADOBE.

All rights reserved. OECD grants you the right to use one copy of this Program for your personal use only. Unauthorised reproduction, lending, hiring, transmission or distribution of any data or software is prohibited. You must treat the Program and associated materials and any elements thereof like any other copyrighted material.

All requests should be made to:

Head of Publications Service,
OECD Publications Service,
2, rue André-Pascal,
75775 Paris Cedex 16, France.

Working Together Towards Sustainable Development

THE OECD EXPERIENCE



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Pursuant to Article I of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original Member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became Members subsequently through accession at the dates indicated hereafter: Japan (28th April 1964), Finland (28th January 1969), Australia (7th June 1971), New Zealand (29th May 1973), Mexico (18th May 1994), the Czech Republic (21st December 1995), Hungary (7th May 1996), Poland (22nd November 1996), Korea (12th December 1996) and the Slovak Republic (14th December 2000). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention).

Publié en français sous le titre :

Œuvrer ensemble en faveur du développement durable

L'EXPÉRIENCE DE L'OCDE

© OECD 2002

Permission to reproduce a portion of this work for non-commercial purposes or classroom use should be obtained through the Centre français d'exploitation du droit de copie (CFC), 20, rue des Grands-Augustins, 75006 Paris, France, tel. (33-1) 44 07 47 70, fax (33-1) 46 34 67 19, for every country except the United States. In the United States permission should be obtained through the Copyright Clearance Center, Customer Service, (508)750-8400, 222 Rosewood Drive, Danvers, MA 01923 USA, or CCC Online: www.copyright.com. All other applications for permission to reproduce or translate all or part of this book should be made to OECD Publications, 2, rue André-Pascal, 75775 Paris Cedex 16, France.

PREFACE

In 1987 the World Commission on Sustainable Development stated that “our global future depends upon sustainable development. It depends upon our willingness and ability to dedicate our intelligence, ingenuity and adaptability – and our energy – to our common future. This is a choice we can make.”

The OECD has both the willingness and ability to contribute to this endeavour. At the OECD Ministerial Council Meeting in May 2001, OECD Finance and Environment Ministers undertook a commitment to shape globalisation for the benefit of all, to ensure that the poorest are not left behind, and to protect global environmental commons. They recognised that OECD countries bear a special responsibility, historically, and because of their weight in the global economy and environment, for leadership on sustainable development worldwide.

Commitments taken earlier this year at Doha and Monterrey for improving market access to, and increasing investments from, OECD countries represent important steps forward. But we should not take it for granted that this alone will suffice to alleviate poverty or strengthen the capacity of developing countries to cement sustainable development policies. The challenge is much broader, and as a truly multidisciplinary organisation, I believe that the OECD is particularly well positioned to help countries in the development of appropriate policies and tools to address the challenge of sustainable development.

This OECD Report demonstrates that since the Rio Conference a decade ago, OECD countries have been working towards sustainable development. They have made very promising progress in some areas. But while ideas and policy recommendations are abundant, implementation has clearly been lagging in many areas. It is only through closer partnerships between OECD and non-OECD countries that we will be able to get to the heart of the matter. This is the challenge for the World Summit on Sustainable Development in Johannesburg.

The OECD remains fully committed to this objective, not only through monitoring and supporting its Member countries in the implementation of sustainable development policies, but also through contributing to new partnerships around the globe that offer the greatest promise for making sustainable development a reality for all.



Donald Johnston
Secretary-General of the OECD

TABLE OF CONTENTS

Executive Summary	7
1. Introduction	13
2. OECD Countries and Sustainable Development: Progress and Challenges	15
Accumulation of various forms of capital has contributed to economic growth in OECD countries, but natural capital has declined.....	15
Higher material living standards in OECD countries rose during the 1990s, supported by increasing trade and investment liberalisation.....	16
Economic growth has improved the quality of life for most citizens of OECD countries, but not for all.....	21
OECD countries continue to put pressure on the environment, despite some progress in decoupling pollution and resource use from economic growth.....	25
OECD countries are making some progress in improving governance for sustainable development.....	40
3. Overcoming the Barriers to Sustainable Development	45
Making markets work for sustainable development.....	46
Strengthening the process of decision making for sustainable development.....	53
Fostering sustainable development through science and technology.....	56
Overcoming obstacles to policy reform.....	57
4. Strengthening Partnerships for Sustainable Development in an Interdependent World	61
Sustainable development is a shared goal of developing and developed countries.....	61
Market access is improving, but major barriers remain.....	62
The capacity to benefit from globalisation needs to be strengthened.....	65
ODA remains very important for global sustainable development.....	67
<i>Notes</i>	71
<i>Annex I. OECD Support for Sustainable Development</i>	73
<i>Annex II. Millennium Development Goals</i>	77
Acknowledgements	79
Acronyms and abbreviations	81
Bibliography	83
Boxes	
2.1. Mexico's programme to define land rights.....	16
2.2. Chemicals in the environment.....	35
3.1. Ecological tax reform: the German experience.....	46
3.2. Water pricing schemes are spreading in OECD countries.....	48
3.3. OECD Guidelines for Multinational Enterprises aim to maximise benefits of foreign direct investment.....	52
3.4. Achieving sustainable consumption.....	53
3.5. Holistic institutional approaches to sustainable development: the UK experience.....	54
3.6. National institutions to monitor progress towards sustainable development: the Canadian experience.....	55
4.1. Climate change and development policies: exploring the synergies.....	63

4.2.	Developing capacity for trade.....	65
4.3.	Supporting technology diffusion: lessons from experience.....	69
A1.	Sustainable development indicators and their use in the OECD peer review processes.....	74
A2.	DAC guidelines on sustainable development strategies.....	76

Figures

2.1.	Trends in gross domestic product, OECD, 1970-2000.....	17
2.2.	Gross domestic product per capita, 2000.....	17
2.3.	Trends in trade and foreign direct investment to gross domestic product ratios, 1990-2000.....	18
2.4.	OECD country trade by region, 1990 and 2000.....	19
2.5.	Selected long-term flows from OECD to developing countries, 1980-1999.....	20
2.6.	Total OECD FDI outflows to selected sectors.....	21
2.7.	Population growth rates in selected OECD countries, 1990-2000.....	22
2.8.	Historical and projected population trends in OECD and non-OECD countries, 1990-2020.....	22
2.9.	Old age dependency ratio projected to 2030, selected OECD country groups.....	23
2.10.	Female and male life expectancy at birth, OECD countries, 1990 and 1998.....	24
2.11.	Educational attainment of the population, by age group, OECD countries, 1999.....	26
2.12.	Proportion of people with low income, selected OECD countries, mid-1980s and mid-1990s.....	27
2.13.	Trends in CO ₂ , NO _x , SO _x , total primary energy supply and road traffic related to GDP (OECD total).....	28
2.14a.	Change in total emission of nitrogen oxides (NO _x) since 1990, OECD countries.....	29
2.14b.	Total emission of sulphur oxides (SO _x) since 1990, OECD countries.....	30
2.15.	Recent and projected changes in forest area by forest type, OECD countries, 1995 and 2020.....	31
2.16.	Gross freshwater abstractions, OECD countries, late 1990s.....	32
2.17.	Municipal waste generation, OECD countries, late 1990s.....	34
2.18.	Carbon dioxide emissions, OECD countries.....	36
2.19.	Carbon dioxide emissions, OECD share in world emissions, 1980 and 1999.....	37
2.20.	Historical and projected trends in world fish production by region and production type, 1980-2020.....	37
2.21.	Protected areas.....	38
2.22.	Nitrogen balances in agriculture, OECD countries.....	39
2.23.	Decade when OECD countries first introduced legislation guaranteeing access to information.....	42
3.1.	Revenues from environmentally related taxes as a share of GDP.....	47
4.1.	Indexed OECD country per capita income and per capita ODA outflows.....	67

Tables

2.1.	OECD trade by partner country, 2000.....	20
3.1.	Trends in subsidy levels in OECD countries.....	49

EXECUTIVE SUMMARY

Sustainable development presents both challenges and opportunities

OECD countries have made progress towards sustainable development since the 1992 Rio Earth Summit. Economic growth has been stable and social conditions have improved in most OECD countries, all while achieving reductions in a number of environmental pressures. Improving the balance between these three dimensions is the essence of sustainable development. OECD countries have also supported progress towards sustainable development beyond their borders, including through initiatives to tackle global environmental problems, as well as through reductions in barriers to trade and investment flows.

Since Rio, progress has been made...

Still, many pressing challenges remain. Strengthened action to address them is needed now, or they might become even more difficult to resolve. Within OECD countries, the challenges include establishing appropriate policies to combat the threat of climate change, to better manage fisheries and water resources, and to provide greater protection of ecosystems and biodiversity. Such policies would result in a more marked decoupling of environmental pressures from economic growth by changing unsustainable consumption and production patterns. A better integration of the social, economic and environmental dimensions of sustainable development in policy making is also needed. The necessary policies have, for the most part, been identified; what is needed now is their implementation.

... but more can be done.

OECD countries recognise that they bear special responsibility for leadership in sustainable development because of their effect on the global economy and on the environment. But sustainable development demands co-operation and partnerships between OECD countries, transition economies, and developing countries. It requires enhanced bilateral and multilateral effort.

OECD countries are committed to show leadership.

There will be no sustainable development without reducing poverty and disease. A fifth of the world's population lives on less than USD 1 per day, and millions suffer from chronic hunger. HIV/AIDS and other diseases are undermining the very foundations of society in many countries. Meanwhile, international and civil conflicts threaten the ability of people to rise out of poverty, setting up a vicious circle whereby poverty feeds violent conflict, and vice-versa. Climate change, biodiversity loss, deforestation, water scarcity, and overfishing – all need immediate action. International environmental conventions and agreements have been set up to tackle many of these, but implementation difficulties abound.

Poverty eradication remains an overarching challenge...

... and global environmental problems need action.

OECD countries are contributing to worldwide poverty eradication

Ambitious poverty reduction and sustainable development goals have been agreed.

Most countries have agreed to a set of ambitious targets for poverty reduction and sustainable development through the development goals contained in the UN Millennium Development Declaration. Achieving the targets set for 2015 – including reducing extreme poverty by half and eliminating hunger – is a major challenge for all countries. Most OECD countries have agreed to devote 0.7% of their gross national income (GNI) to development assistance. Although most fall well short of this target, there is new readiness, as evidenced at the UN Conference on Financing Development in Monterrey, to increase aid efforts.

Increased trade and investment liberalisation can contribute...

Increasing trade and investment liberalisation is also vital, and has sustained economic growth in OECD countries as well as benefiting a number of non-OECD countries. Its importance for sustainable development cannot be underestimated, but needs to be accompanied by appropriate national policies to ensure social and environmental benefits as well as economic growth.

... particularly by expanding market access for those countries at the margins of globalisation

Some of the poorest countries have been left behind however. Lack of capacity has to some extent prevented them from taking advantage of these opportunities, but the persistence of trade barriers in OECD countries is also to blame. The gain to developing countries from unrestricted access to OECD country markets for textiles and clothing, other manufactured goods, and agricultural products could total USD 43 billion per year. Gradually reducing these trade barriers could also increase the welfare of OECD citizens by lowering consumer prices, improving the allocation of resources and, in some cases, reducing pressures on the environment. Efforts to remove trade distortions are being strengthened through the Doha Development Agenda of the WTO. Other initiatives, specifically aimed to increase market access for products from the least developed countries, can complement this process.

Despite economic growth, pressing social and environmental problems persist in OECD countries

Economic growth has improved many social conditions, but disparities persist, and...

Problems persist within OECD countries as well, despite the sustained economic growth experienced in the past decade. While this growth has led to improved quality of life for most OECD citizens, not all have benefited. Although education and social cohesion are fundamental to sustainable development, unemployment, social exclusion, and access to education have worsened in a few OECD countries. Everywhere, rapidly ageing populations are putting pension schemes under pressure, with important implications for inter-generational equity.

... better implementation of policies to address environmental problems is needed.

Economic activities in OECD countries continue to exert pressure on the environment. There has been some decoupling of environmental pressures from economic growth, including significant achievements in reducing emissions of certain air and water pollutants, especially from point sources, and in managing some renewable resources. Thus, OECD countries have virtually eliminated emissions of lead from petrol and of ozone depleting CFCs, and have increased forest area and volume.

But more can be done. Globally, climate change and the sustainable management of natural resources remain the greatest challenges. Within

OECD countries, urban air pollutants arising from energy and transport still exceed national health limits in some areas, while pollution from agriculture and other sources impairs water and soil quality. Persistent and toxic chemicals are more pervasive in the environment due to their increased use and tendency to accumulate. Even though more waste is being recycled, its volume continues to increase.

Obstacles to policy reform can be overcome

While a number of cost effective policies or actions have been identified, obstacles to their successful implementation remain. Progress towards sustainable development requires:

- the reform of government decision-making processes to allow a more integrated approach to sustainable development, including better mechanisms for interacting with civil society;
- greater use of market-based instruments, combined effectively with regulations, to encourage producers and consumers to take the full costs of environmental or social pressures into account;
- harnessing of science and technology to boost its contribution to sustainable development, including greater use of technology policies to help decouple environmental pressures from economic growth;
- ensuring that trade, investment, environmental and social policies are coherent and mutually supportive, and the opening of world markets to ensure that the benefits of globalisation and technological advance are widely shared; and
- introducing policy changes at a pace and in a manner that allows for adequate adaptation to any adverse social effects.

OECD countries are increasingly using market instruments to address environmental externalities, such as through greater use of environmental taxes and tradable permits. However, exemptions to environmental taxes can be significant, and are often provided to the most polluting and energy-intensive industries, reducing their effectiveness. Moreover, progress in reforming environmentally damaging subsidies has been slow, particularly in some sectors. There is resistance to reform because of fears of a loss of competitiveness for affected sectors, or that the costs will simply be too high in terms of employment or income effects. Lack of information on the full effects of support programmes and taxation policies further hampers reform. Policies are needed to address these concerns (such as retraining, lifetime education, or adjustment schemes) or by co-ordinating international action (such as on the use of energy taxes or removal of environmentally damaging subsidies).

Science and technology can make a substantial contribution to sustainable development, for example through the development of alternatives to and more efficient use of fossil fuels, affordable drugs to combat common diseases, accessible water purification systems, and through better understanding of ecosystems. New technologies can contribute to more sustainable production and consumption patterns, enabling people to use resources and energy more efficiently, substitute benign for hazardous substances and processes, and manage waste more effectively. But greater efforts are needed to overcome the

Cost-effective solutions exist, but there are major obstacles to their use.

These barriers can be overcome through policies to address adverse social effects,...

...co-ordinated action,...

... the development and dissemination of appropriate science and technology,...

information gaps and market barriers which limit the development and dissemination of such technologies. This includes improving the capacity of governments to facilitate and encourage a broad and well-informed debate on critical issues, and to manage scientific knowledge with a longer term horizon. The application of new technologies and practices that can improve performance should be extended, while ensuring that new technologies, such as genetically-modified organisms, do not entail unacceptable environmental or health risks.

... and improved policy coherence for sustainable development.

Because of the multi-dimensional nature of sustainable development, OECD countries recognise that they need to strengthen their decision making through increased integration of policies across sectors and ministries. Adequate investment is needed across the economic, social and environmental pillars of sustainable development: in equipment and infrastructure, intellectual capital, human capital, and natural capital. Monitoring and reporting progress towards sustainable development, including through the use of indicators, is important for this process, as are increased transparency of policy decisions and participation by affected citizens, business and civil society. Most OECD countries are now developing more effective communication and consultation processes.

Global partnerships are essential

Increased partnerships between OECD and non-OECD countries are needed.

The growing economic importance of non-OECD countries has increased their role in ensuring the integrity of global economic, environmental and social systems. The globalisation of both economic activity and environmental problems means that co-operation and partnerships have become essential for moving towards sustainable development at least-cost. This requires co-operation not only among governments, but also between governments and stakeholders.

OECD countries can support developing countries in their efforts...

Each country bears primary responsibility for creating the conditions that generate sustainable growth while maintaining environmental and social quality within its borders. But OECD countries can do much to support developing countries in their efforts. Countries can work together to achieve common goals, ensure good legal frameworks, expand market access to goods and services of non-member countries, and to provide the right conditions to encourage foreign direct investment that supports sustainable development. Increasing the effectiveness of ODA and bringing it to the appropriate level can help non-OECD countries to develop the human capacities, institutions, and governance that will enable them to take advantage of the opportunities offered by globalisation

... including through providing the right frameworks for private financial flows, and increasing the effectiveness of ODA.

OECD countries can also support developing countries' efforts towards sustainable development by stimulating increased and better directed technology co-operation, know-how, and financial resources. OECD donor countries should encourage the integration of social and environmental concerns in national development strategies of developing countries.

The international framework to encourage other forms of financing – such as foreign direct investment (FDI), portfolio flows, and financial support from international financing institutions – is currently being established, as well as mechanisms to encourage environmentally and socially responsible investment.

Developing adequate capacity and policy frameworks at the national level – including good governance, transparency, predictability, and creating appropriate environmental and social conditions – can also help to attract investment flows that support sustainable development.

The OECD supports countries in their progress towards sustainable development

The OECD brings together 30 countries sharing a commitment to democratic government and a market economy. The global reach of its activities is secured by active relationships with some 70 non-OECD countries, non-governmental organisations and civil society. The Organisation provides governments with a forum in which to identify emerging issues and analyse, discuss and develop a range of public policies. Member countries compare experiences, seek answers to common problems and work to improve domestic and international policy co-ordination. The work of the Organisation covers economic, social, environmental and agricultural policies, as well as development co-operation, trade, fiscal, public management, science, and other sectoral policies. Because of its interdisciplinary approach taken by the OECD in its analytical and policy work, it is well placed to support governments in their efforts to increase policy coherence and integration in pursuit of sustainable development.

Accountability is a key pre-requisite for achieving sustainable development. Peer reviews of country performance help countries to monitor their progress towards national sustainable development in a consistent manner, and stimulates countries to challenge one another on the implementation of their policies.

New work requested by OECD Ministers in May 2001 will support the further advancement of sustainable development objectives. Agreed indicators that measure progress across all three dimensions of sustainable development will be developed with a view to incorporating these into OECD's peer review processes. Analysis will identify how obstacles to policy reforms – in particular to the better use of market-based instruments and the phasing-out of environmentally harmful subsidies – can be overcome. Ways to further social aspects of sustainable development will be assessed. And guidance for achieving improved economic, environmental and social policy coherence and integration will be developed. The OECD remains committed to using its expertise and internal processes to help countries in their transition towards a pattern of economic development that is environmentally and socially sustainable, both domestically and globally.

The OECD supports its members in their efforts towards sustainable development through a range of activities.

Regular reviews of performance and peer pressure help countries to monitor their progress in a consistent and comparable manner.

1

INTRODUCTION

Sustainable development remains a global challenge. Progress has been realised in the ten years since the 1992 Earth Summit, but many challenges remain. OECD countries have enjoyed sustained economic growth in recent years, improved social conditions, and reductions in certain environmental pressures. Their actions have also supported moves towards sustainable development in non-OECD countries and globally, including removing some barriers to investment and trade, and working together to tackle some global environmental problems. However, many pressing issues remain. Tackling them will be more difficult in the future if action does not start now.

Within OECD countries, priorities for action include improving access by all citizens to social services and opportunities, overcoming the gap in the implementation of environmental policies, achieving sustainable consumption and production patterns, and better integrating the three dimensions of sustainable development – economic, social, and environmental – into policy-making. Outside the OECD region, the challenges are even more pressing. Many of these challenges are affected – sometimes positively, sometimes negatively – by OECD country policies. Access of goods produced by developing countries to OECD markets is still limited, restricting the possibilities for some developing countries to take advantage of trade opportunities. Increasing trade and investment liberalisation could in the future benefit many developing countries and support their efforts to eradicate poverty. One in five people world-wide lives in extreme poverty, and a number of global and regional environmental problems (*e.g.* climate change, biodiversity loss, water scarcity and pollution, and overfishing) require urgent attention. Commitments exist to tackle these problems – for example through the Millennium Development Goals and various multilateral environmental agreements – but implementation has remained limited.

When OECD Ministers of Finance and Environment first met together at the OECD in May 2001, they recognised sustainable development as an overarching goal of OECD governments and the Organisation. They emphasised that OECD countries bear a special responsibility for leadership on sustainable development worldwide, historically and because of the weight they continue to have in the global economy and environment. Endorsing the key policy recommendations from a three-year organisation-wide project on sustainable development, they recognised the difficulties inherent in implementing these policies, and the gaps in analytical and scientific understanding in the area of sustainable development. To help address these issues, they asked the OECD¹ to continue assisting them in formulating and implementing policies to achieve sustainable development, and in particular to:

- develop agreed indicators that measure progress across all three dimensions of sustainable development, with a view to incorporating these into OECD's peer review processes;
- identify how obstacles to policy reforms – in particular to the better use of market-based instruments, and to the reduction of environmentally harmful subsidies – can be overcome;
- analyse further the social aspects of sustainable development; and
- provide guidance for achieving improved economic, environmental and social policy coherence and integration.

Ministers asked the OECD to report to them on progress achieved on these issues at their 2002 Ministerial Council Meeting, with a view to contributing to the forthcoming World Summit on Sustainable Development (WSSD) to be held in Johannesburg, South Africa, in August-September 2002. This report responds to that mandate.

The WSSD provides an opportunity for countries to assess progress towards sustainable development in the decade since the Earth Summit, and to discuss the path forward. This report provides a review of the contribution of the actions and policies of OECD countries both within their own borders and internationally, including how they impact on developing countries' progress towards sustainable development. It brings together the lessons learned through OECD country experience on the conditions needed to achieve sustainable development, indicates some of the barriers to their implementation, and identifies some of the options for overcoming these barriers, drawing on the past and ongoing work of the Organisation.

This report provides a brief overview of the key messages emerging from a three-year horizontal work programme on sustainable development at the OECD that was completed in 2001, and the initial findings of new work started in response to the request by Ministers at their May 2001 meeting. Chapter 2 of the report provides a brief review of the progress that OECD countries have made in contributing to sustainable development, both within their own boundaries and globally. It provides a factual review of the effectiveness of current policies of OECD countries in the achievement of sustainable development and of already agreed commitments. Chapter 3 reviews progress in the development and implementation of policies to achieve more sustainable development. It also identifies the barriers to policy reform, and some of the successful measures to overcome these barriers. Chapter 4 outlines the approaches OECD countries are taking that support or hinder more sustainable development in non-OECD countries and globally. It identifies the issues for which co-operation between OECD and non-OECD countries will be needed to further progress.

2

OECD COUNTRIES AND SUSTAINABLE DEVELOPMENT: PROGRESS AND CHALLENGES

Sustainable development implies providing for the needs of the present generation without compromising the ability of future generations to meet their own needs. It involves making progress simultaneously along three dimensions – economic, social, and environmental – each of which is linked to the others. Economic growth in OECD countries over the past decade has led to improved quality of life for most citizens, who have enjoyed rising levels of life expectancy and educational attainment. However, not all have benefited from these gains. While the number of people living in poverty has decreased in some OECD countries, it has increased in others, affecting families with children and young adults the most. Economic growth in OECD countries also continues to put pressure on the environment, despite some progress in decoupling pollution and resource use from economic growth.

Accumulation of various forms of capital has contributed to economic growth in OECD countries, but natural capital has declined

Maintaining or increasing the level of total capital – including man-made, natural, human, and social capital – is essential for sustainable development. Investment in the different forms of capital affect economic growth and sustainable development, although in some cases this relation is only evident in the longer term². Thus, it is not surprising to find that GDP growth in OECD countries during the 1980s and 1990s was accompanied by steady or increasing shares of GDP devoted to investment in plant, equipment and infrastructure (physical capital); education and health care (human capital); and research and development (intellectual capital). While the share of GDP in OECD countries invested in physical capital fell in the first part of the decade, it recovered in the second, mainly due to significant spending on information technology. Over the same period, the share of GDP devoted to education and training remained stable at about 6%, while that devoted to health care rose from 7.6% in 1990 to over 8.2% in 1998. The GDP share going to research and development (R&D) from both the public sector and industry remained steady at over 2% of GDP, with that financed by industry rising to reach about two-thirds of the total by the end of the decade.

Natural capital is critical for sustainable development, providing resource inputs to industry, assimilating wastes, and providing essential ecosystem services and amenities. OECD countries have made considerable efforts in recent years to reduce human pressures on natural capital, including reducing the release of many pollutants and ensuring adequate regeneration of some renewable natural resources (*e.g.* forest stocks). Expenditures on pollution abatement and control has been rising slowly in recent years, reaching around 1-2% of GDP in most OECD countries (OECD, 2001*a*). Other areas of the natural resource base used by OECD countries continue to be overused or are being degraded in quality, however, including world fish stocks, the global atmosphere, groundwater resources, and the capacity of ecosystems to assimilate toxic chemicals (OECD, 2001*b*). In some cases, reductions in natural capital have had immediate impacts on economic or social conditions, for example where overfishing has led to the economic collapse of selected fisheries or where soil loss has reduced the viability of

Box 2.1. Mexico's programme to define land rights

The Mexican constitution recognises three forms of land ownership: small private ownership with well-defined size limits, community land, and ejidos. Community land and ejidos are forms of collective land ownership that were promoted during several decades of land redistribution from 1917 to 1992. Currently, they cover about 103 million hectares, about half the territory of Mexico. The 1992 reform of Article 27 of the Mexican constitution and the subsequent Agrarian Law opened the possibility of defining individual property rights on land held under the ejido or communal property system. Defining and effectively protecting these individual property rights involves: a two-thirds majority approval in the ejido assembly; drawing a map and measuring the size of the land and the limits of the ejido; deciding the use of the land in each ejido, including residential land, common land and plots; and registering the limits and uses of the land in the National Agrarian Registry.

In 1993, the Mexican government introduced a program to certify ejido rights and urban lot titles (Programa de Certificación de Derechos Ejidales y Titulación de Solares Urbanos or PROCEDE). Participation in this program is voluntary and free for beneficiaries. The National Agrarian Registry issues certificates of rights over common-use lands to the members of the ejido or community, as decided by the assembly, specifying the name of the individual and his percentage interest in those lands. The certified plots cannot be sold to anyone outside the ejido or community. By October 2000, 72% of the ejidos and communities in Mexico had been certified under PROCEDE.

The certification process is a significant step in defining land rights to community and ejido land. Previously, rentals of land were informal. Under the new system, many land rentals are likely to be formal, giving greater security to both landlords and tenants, and providing incentives for the owners to ensure their use of the land is sustainable over the longer-term.

Source: OECD (2001c).

certain lands for agricultural production. In other cases, the impacts of a deterioration or depletion of natural capital on economic conditions are not yet visible, but may negatively impact on future generations, raising concerns regarding inter-generational equity.

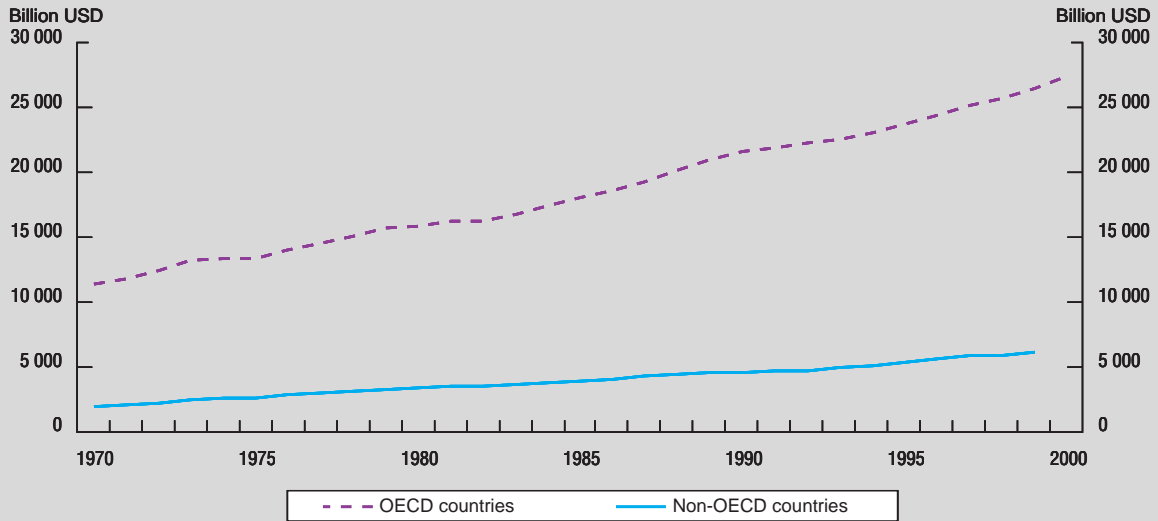
Various policies influence the rate of accumulation of the different forms of capital that contribute to sustainable development. Thus, macroeconomic policies geared towards low inflation and sound public finances have contributed to sustained accumulation of man-made capital and economic growth. Investments in education and health have translated into higher educational attainment and improved health status, and contributed to labour productivity. Investment in R&D has generated new technologies and led to more efficient use of existing resources. The clear definition and enforcement of property rights over natural resources has provided incentives for more sustainable use of these resources (see Box 2.1), while investment in infrastructure and technologies to limit pollution, in large part induced by policies that internalise the external social and environmental costs of economic activities, have reduced pressures on the natural resource base.

Higher material living standards in OECD countries rose during the 1990s, supported by increasing trade and investment liberalisation

Economic growth has been sustained in OECD countries

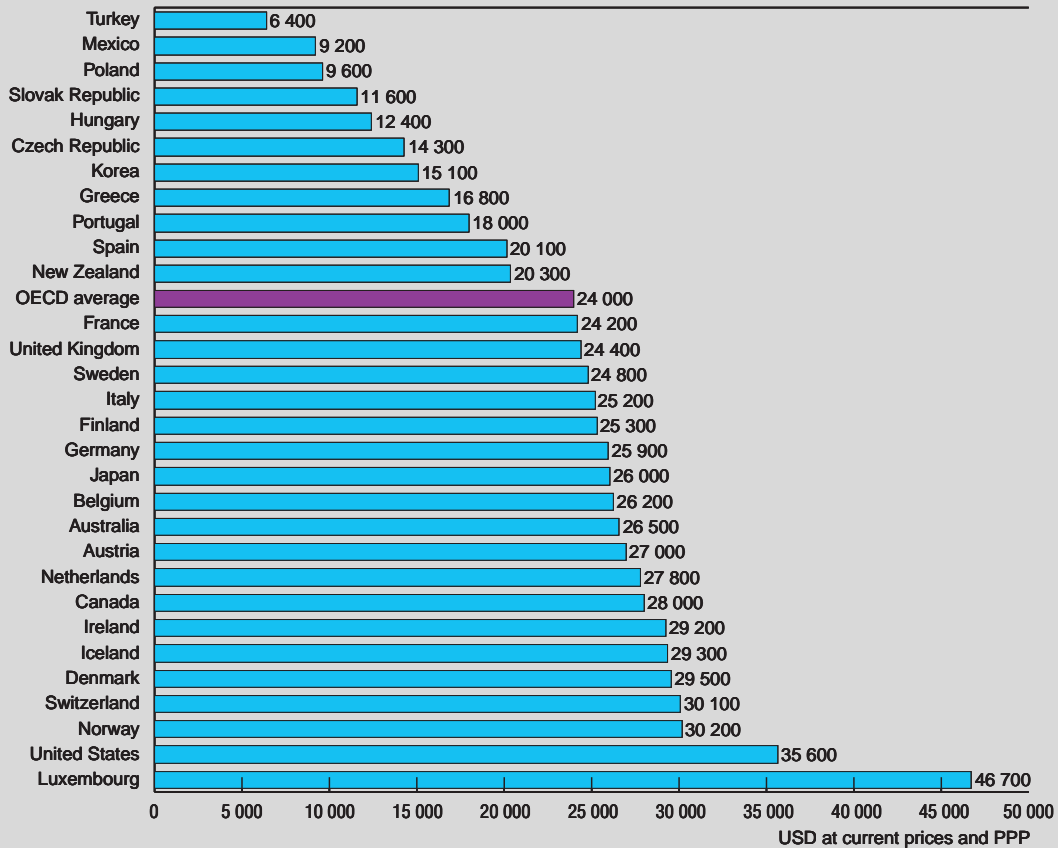
OECD countries have enjoyed strong economic growth during the past thirty years (Figure 2.1), with per capita income nearly tripling for the 26 OECD countries for which data are available. While economic growth in OECD countries slowed from an average of 3% per year in the 1970s to about 2.4% in the 1980s, it picked up again during the 1990s to reach a decade-long average of 2.6% per year. The level and growth in gross domestic product (GDP) varied significantly from country to country (Figure 2.2).

Figure 2.1. Trends in gross domestic product, OECD, 1970-2000



Notes: At the price levels and exchange rates of 1995. Data for OECD exclude Czech Republic, Hungary, Poland and Slovak Republic.
Sources: OECD, National Accounts Database; World Bank (2000).

Figure 2.2. Gross domestic product per capita, 2000
USD using current purchasing power parities (PPP)



Source: OECD, Annual National Accounts Database.

While OECD economies grew steadily during the ten years to 1999, non-OECD economies in aggregate grew slightly faster, at an average rate of about 3.3% per year (World Bank, 2000). However, more rapid population growth in most non-OECD countries, implied a larger gap in per capita GDP between OECD and non-OECD countries.

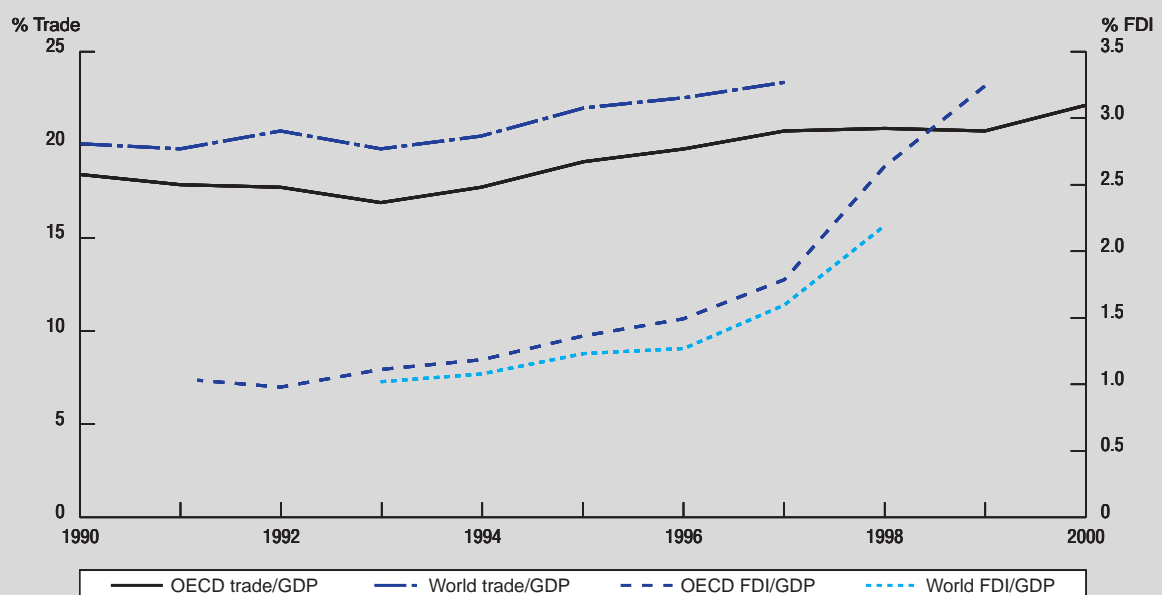
Trade and foreign direct investment have increased, but ODA has fallen

Among the most important factors sustaining economic growth in OECD countries is openness to trade and foreign direct investment (FDI). Trade and investment promote economic growth, employment, and development by improving resource allocation, exposing producers to competition, and diffusing technology and knowledge. During the past few decades, OECD countries have further reduced their tariffs and non-tariff barriers to trade and investment, although to a varying extent across different sectors. This process was particularly pronounced during the 1990s, when new regional trading arrangements were forged (especially in the Asia-Pacific, Europe, and North America), the World Trade Organisation (WTO) Agreements were concluded, and many countries unilaterally reduced their trade barriers.

As a result, OECD trade and FDI outflows in relation to GDP grew strongly during the past decade. OECD trade (measured as the sum of imports and exports) in proportion to GDP grew from 18% of GDP in 1990 to 22% in 2000. OECD FDI outflows grew from 1% of GDP in 1991 to 3.3% of GDP in 1999. Growth in OECD trade and FDI mirrors that in the world as a whole (Figure 2.3).

OECD countries continue to trade and invest primarily among one another. In 2000, about 79% of OECD country exports went to other OECD countries and 73% of imports came from other OECD countries (Figure 2.4). But both shares are lower than they were in 1990, when intra-OECD country trade accounted for 80% of exports and 78% of imports. In 1999, about 85% of FDI originating in OECD countries went to other OECD countries. This share has not declined in recent years, although the total amount of OECD FDI going to non-OECD countries has grown: from USD 19 billion in 1995 to USD 125 billion in 1999 (OECD,

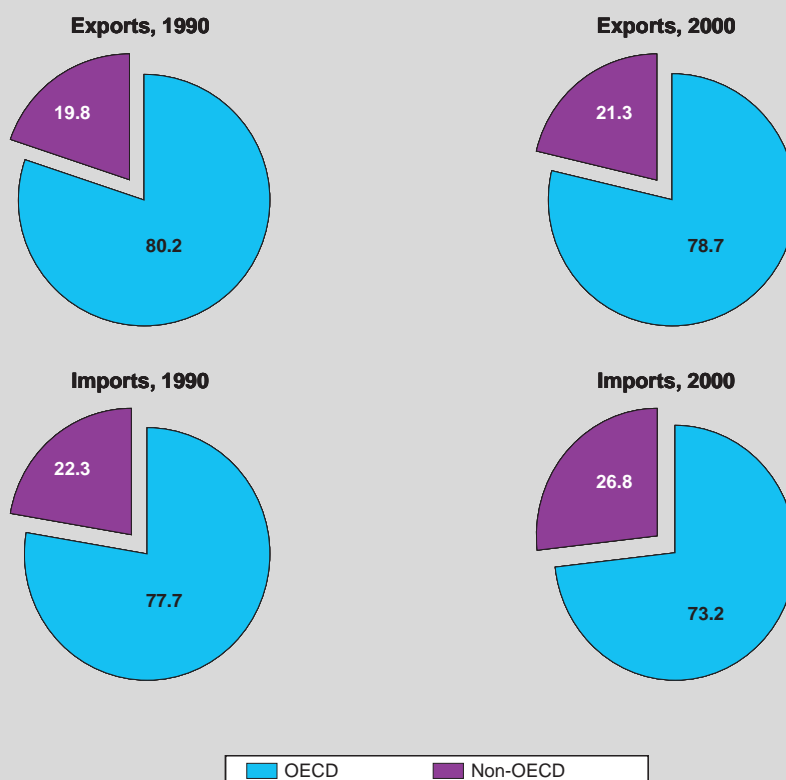
Figure 2.3. Trends in trade and foreign direct investment to gross domestic product ratios, 1990-2000



Note: Statistical definitions for world FDI data differ from the ones applied by the OECD International Direct Investment Statistics, therefore the time series may not be directly comparable.

Source: OECD (2000b); UNCTAD (2000); World Bank (2000).

Figure 2.4. OECD country trade by region, 1990 and 2000



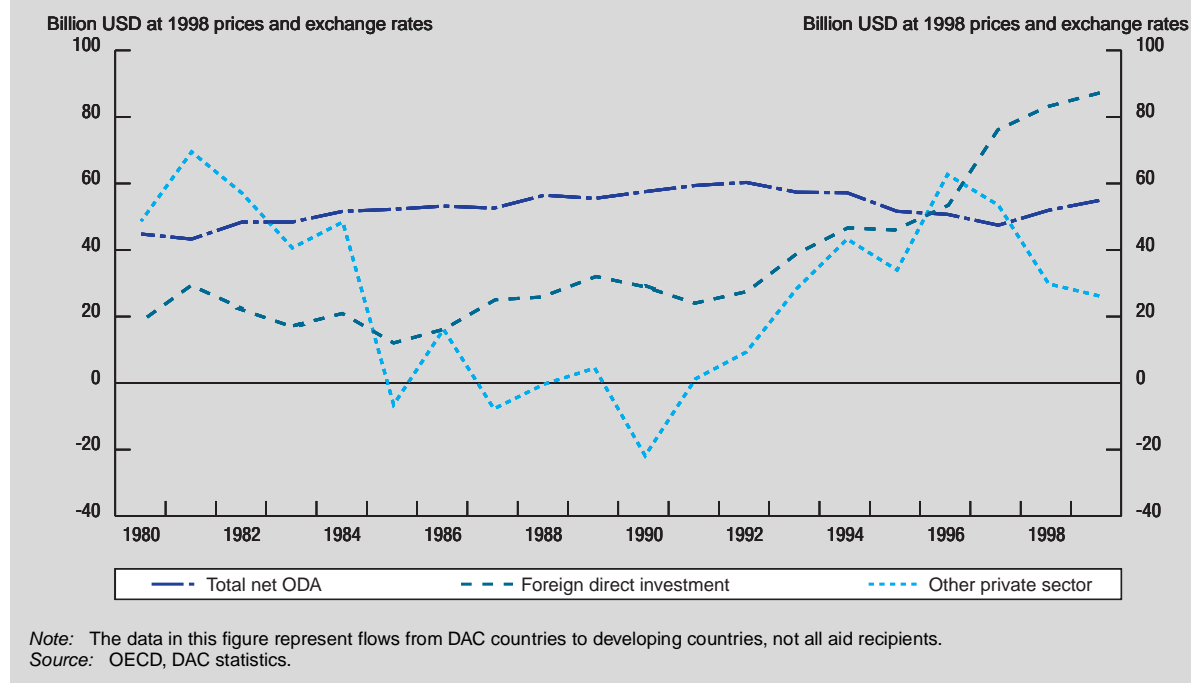
Source: OECD, National Accounts Database.

2000*b*). Over 70% of these flows to non-OECD countries went to developing countries (see Figure 2.5). Trade between non-OECD countries has also been increasing significantly.

Only a few developing countries have accounted for most of the increased trade and investment between OECD and non-OECD countries. In 2000, 38% of OECD exports to non-OECD countries went to just five countries, and 42% of imports from non-OECD to OECD countries came from five countries (Table 2.1). As for OECD FDI directed to non-OECD countries, 40% of this was invested in just four countries in 1999: Argentina, Brazil, Hong Kong, and Chile (OECD, 2000*b*). FDI flows from OECD countries to non-OECD countries have become increasingly concentrated in just a few countries, with flows to the top ten non-OECD countries increasing from 19% in 1985 to 53% in 1999 of total OECD flows to non-OECD countries.

While OECD FDI to developing and transition countries are still a relatively small proportion of their total capital outflows, they are increasingly important for the recipients. This is because, as outward FDI has been rising, official development assistance (ODA) has declined. Since 1995, the value of FDI to non-OECD countries has exceeded the value of ODA. In 1999, FDI exceeded USD 80 billion, and accounted for 55% of the total capital inflows of developing and transition countries (excluding bank lending, bonds, and equities) (Figure 2.5). However, there was an important indication of a reversal in this declining trend in the statements made by major OECD donors at the UN Financing for Development Conference in Monterrey, Mexico, in March 2002.

Figure 2.5. Selected long-term flows from OECD to developing countries, 1980-1999



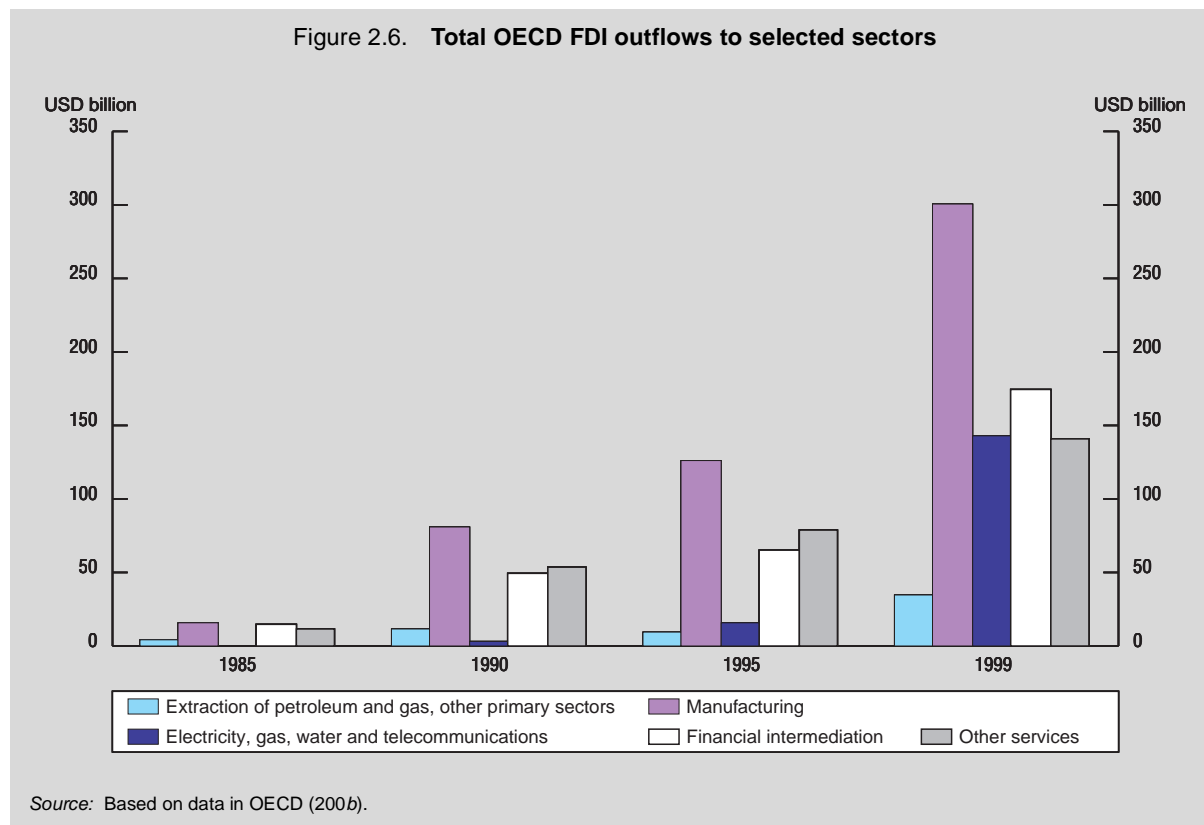
Although the majority of OECD countries have agreed to devote 0.7% of their gross national income (GNI) to development assistance, only five achieved this target in 2001. While OECD countries are increasingly recognising the importance of investing in basic services that directly contribute to sustainable development – such as health services, education, and environmental protection – these priorities are not yet translating into higher amounts of ODA targeted to these areas. Thus, for example, health and education currently account for just over 13% of total ODA. Despite these trends, ODA continues to provide an important share of total resources available for social and environmental improvements in recipient countries and is likely to remain so in the future. The increase in FDI flows will not change this situation, as most FDI are targeted to productive activities, such as extraction of oil and gas, manufacturing, and financial services, while very little FDI goes to provide basic social or environmental services (Figure 2.6).

Table 2.1. OECD trade by partner country, 2000

	Imports		Exports		
	Million USD	% from non-OECD	Million USD	% to non-OECD	
OECD from OECD	3 469 379		OECD to OECD	3 491 785	
Non-OECD to OECD	1 280 664	41.8	OECD to non-OECD	944 000	38.3
<i>of which from:</i>			<i>of which to:</i>		
China	249 922	19.5	China	95 785	10.1
Chinese Taipei	98 274	7.7	Chinese Taipei	87 103	9.2
Russia	66 726	5.2	Hong Kong	77 089	8.2
Malaysia	65 403	5.1	Singapore	63 359	6.7
Saudi-Arabia	54 873	4.3	Malaysia	38 312	4.1

Source: OECD.

Figure 2.6. Total OECD FDI outflows to selected sectors



Economic growth has improved the quality of life for most citizens of OECD countries, but not for all

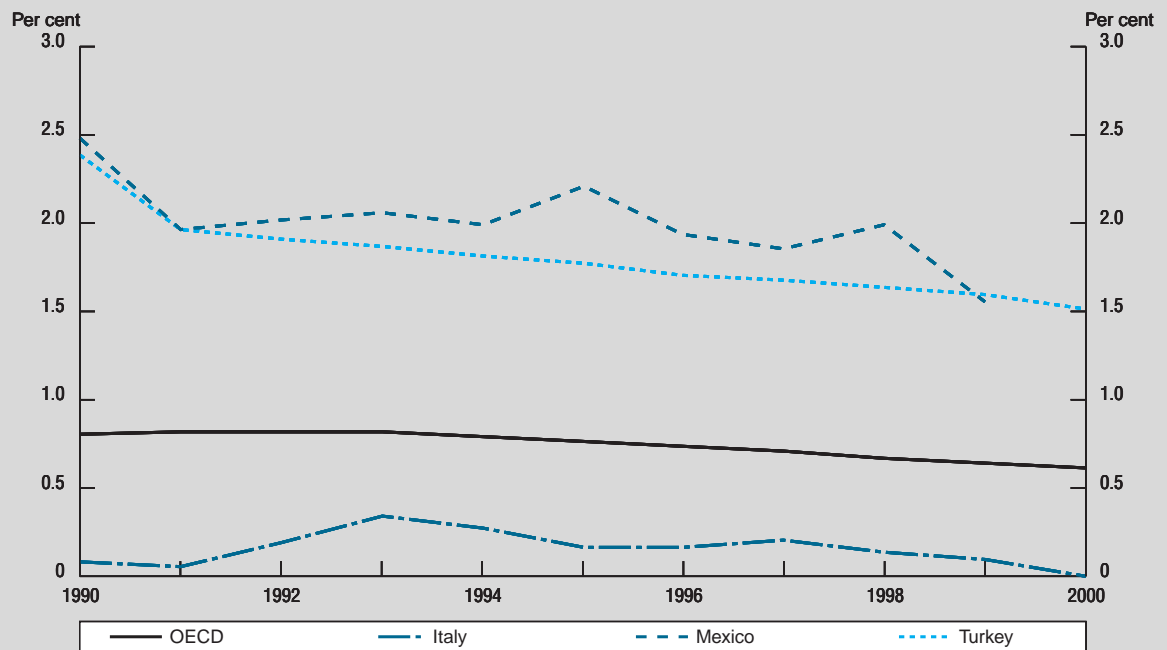
Over the past fifty years, with rising living standards, OECD countries have undergone significant demographic and social changes. Most have undergone a demographic transition that many developing countries still face. Moreover, most have successfully addressed some of the pressing social and human development issues that developing countries are still dealing with, such as reducing high rates of communicable diseases, ensuring an adequate food supply, providing clean water and sanitation, and achieving universal primary education. The challenges now facing most OECD countries relate to diseases of old age (*e.g.* cancer, heart disease, and degenerative brain diseases); finding approaches to education that allow people to learn new skills and perform new jobs throughout their lifetime; integrating the most disadvantaged welfare recipients into employment; and adapting social safety nets to population ageing and shifts in family composition. Fighting unemployment remains an essential element of the social dimension of sustainable development in OECD countries, as work is an important factor for people's self-realisation and for their ability to share in the prosperity of society.

Population is growing slowly and is gradually ageing

In most OECD countries, population growth has slowed dramatically during the past few decades. In 1999, the population growth rate stood at 0.6%, compared with 0.8% in 1990 (Figure 2.7). In non-OECD countries, world population levels are continuing to grow at a faster pace than in OECD countries, though at a slower rate than in the past (Figure 2.8). As a result, the share of OECD countries in world population is projected to shrink from about 18% today to 15% in 2020. Total world population is expected to stabilise by mid-century.

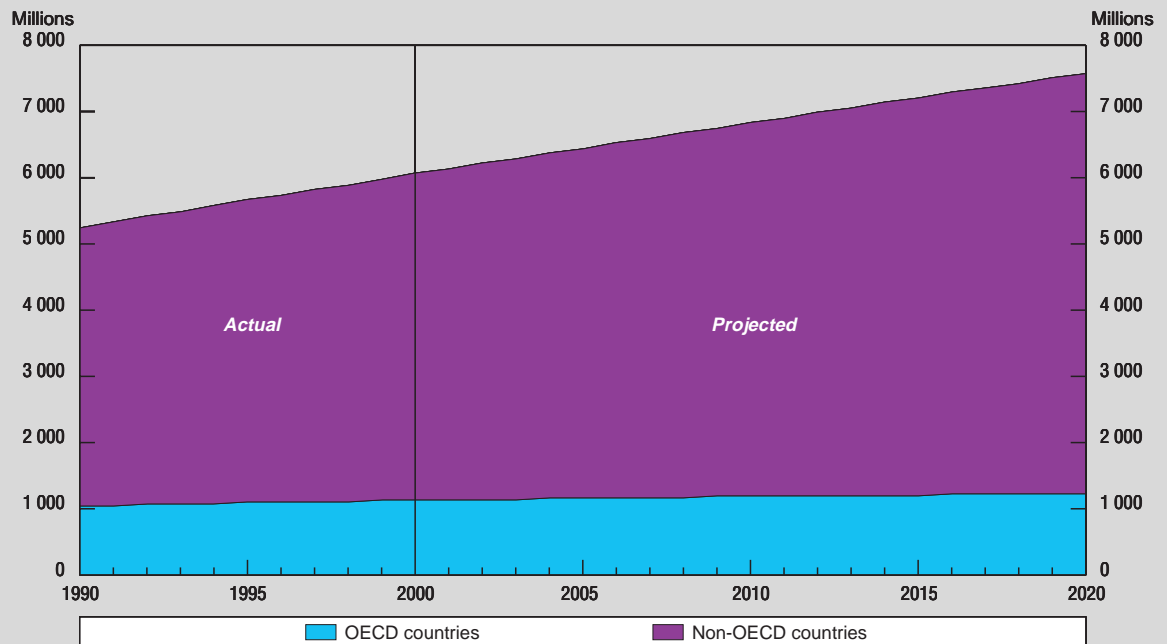
Lower population growth rates in OECD countries has reflected a decline in desired family size, linked, among other factors, to rising opportunities for women to obtain education and participate in

Figure 2.7. Population growth rates in selected OECD countries, 1990-2000



Source: UN (2001).

Figure 2.8. Historical and projected population trends in OECD and non-OECD countries, 1990-2020



Source: UN (2001).

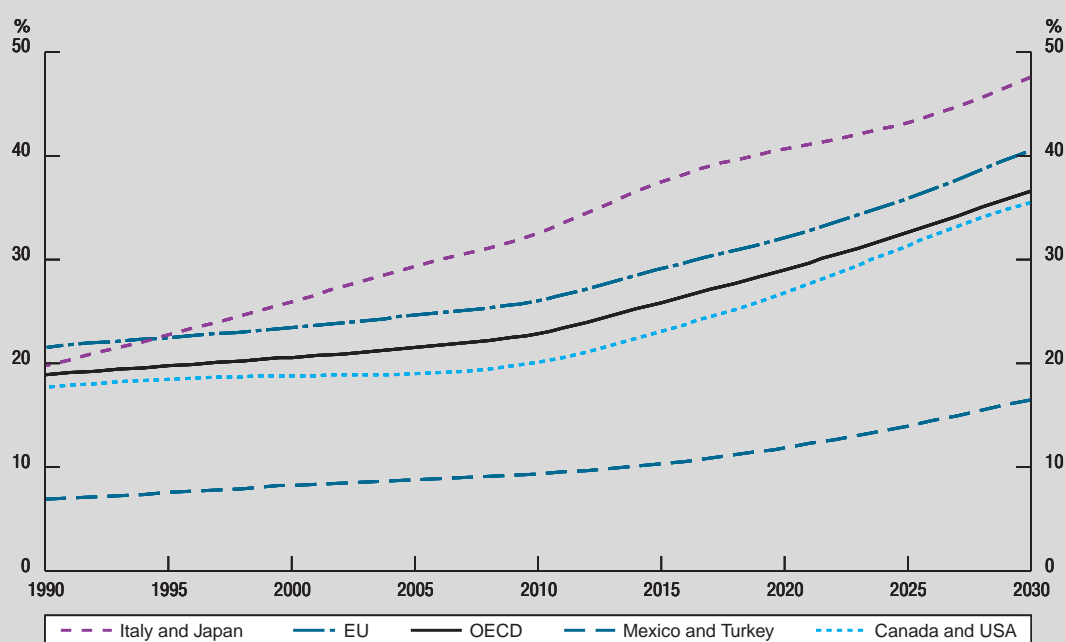
the workforce, which increases the opportunity costs of raising children; increasing years spent in formal education, which increases the direct costs of raising children; and expanding old age social security systems, which reduces the need for offspring to provide assistance to their elderly parents. In some OECD countries, birth rates are now below population replacement levels. Despite immigration, total population is expected to fall for some OECD countries after 2010 (OECD, 2001*b*).

The slowdown in OECD population growth rates has led to shifts in population structure. The proportion of people over 65 years in total population compared with the share that is of working age (15-64) – known as the dependency ratio – is growing particularly fast. Presently, with birth rates in a number of OECD countries below population replacement levels, old age dependency ratios are projected to increase from 20% in 2000 to 35% in 2030 (Figure 2.9). This is a concern to some governments, in part because it means the burdens of supporting growing numbers of older people will fall on fewer and fewer workers. Governments are developing strategies for mobilising the resources they will need to finance the pensions and health care for the elderly. Some OECD countries are also now seeking to increase birth rates through policies that make it easier for parents to fulfil their responsibilities to employers and to other family members, for example, increasing the availability and affordability of childcare and implementing family leave policies that allow both men and women to temporarily withdraw from the workforce without sacrificing opportunities for career advancement (OECD, 1999*a*).

Life expectancy continues to climb

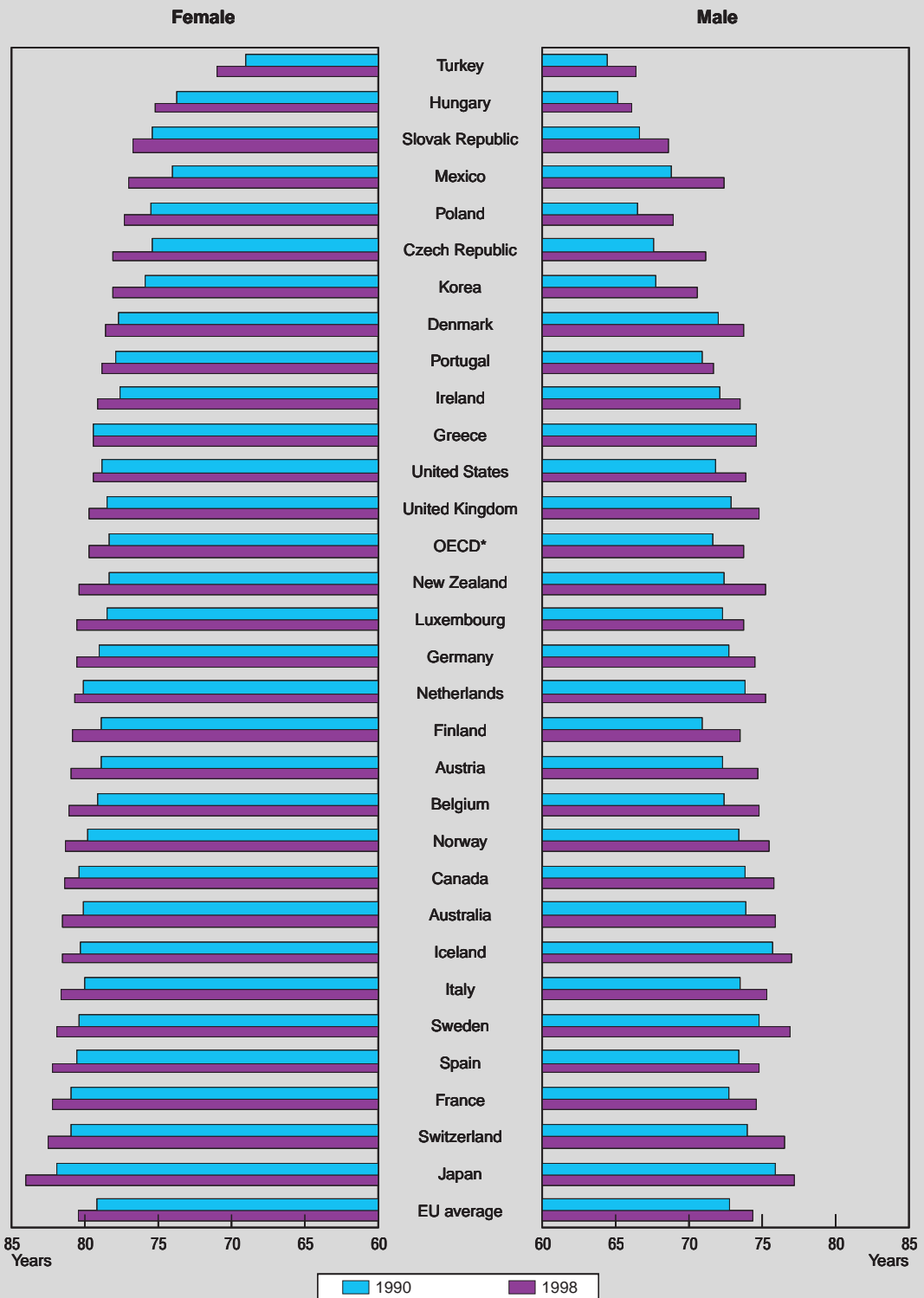
Life expectancy at birth, an important measure of welfare, has continued to grow in nearly all OECD countries during the past ten years. These gains have been made possible through increasing resources dedicated to health care, rising standards of living, better diets, public health interventions, and higher levels of education. Improvements in life expectancy at birth reflect a decline in mortality rates at all ages, including a sharp reduction in infant mortality rates and higher survival rates at older ages. (Figure 2.10). Although the gains in life expectancy have differed across countries, they are converging

Figure 2.9. Old age dependency ratio projected to 2030, selected OECD country groups



Source: OECD (2001*d*).

Figure 2.10. Female and male life expectancy at birth, OECD countries, 1990 and 1998



* Weighted OECD average.
Source: OECD (2001e).

towards the levels prevailing in countries with the longest life expectancy. In some countries, however, increases in “healthy” life expectancy have not kept pace with higher life expectancy.

On the other hand, life expectancy in some central and eastern European countries, such as Hungary and Slovakia, has grown much more slowly than the OECD average. This trend is especially evident for men, and seems to reflect a combination of unhealthy lifestyles, such as diets heavy in fat, and high consumption of alcohol and tobacco (OECD, 1999b).

Educational attainment is rising

A well-educated population is critical for the current and future economic and social development. Education plays a key role in providing individuals with the knowledge, skills, and competencies to participate effectively in society. OECD countries have been devoting an increasing share of their GDP to education and training during the past twenty years. As a result, the average number of years of school completed by the working age population has increased steadily in all OECD countries, particularly in countries where older adults had a lower level of attainment, such as Korea, Mexico, Greece, Spain, and Turkey.

Enrolment in secondary and tertiary education grew strongly in most OECD countries between 1980 and 1999, with the greatest gains again seen in countries where adults had low levels of education (Figure 2.11). As a result, differences in the level of educational attainment between countries are shrinking.

OECD citizens are also more likely than ever before to participate in education and training programs over their lifetimes. More than one-third of all people aged 25 to 44 now participate in some form of continuing education and training in ten out of eighteen OECD countries for which data are available. Adults in these countries can now expect to participate in further education in the equivalent of 0.7 to 3.2 years of full-time training between ages 20 and 65.

Poverty rates have risen in some OECD countries, and fallen in others

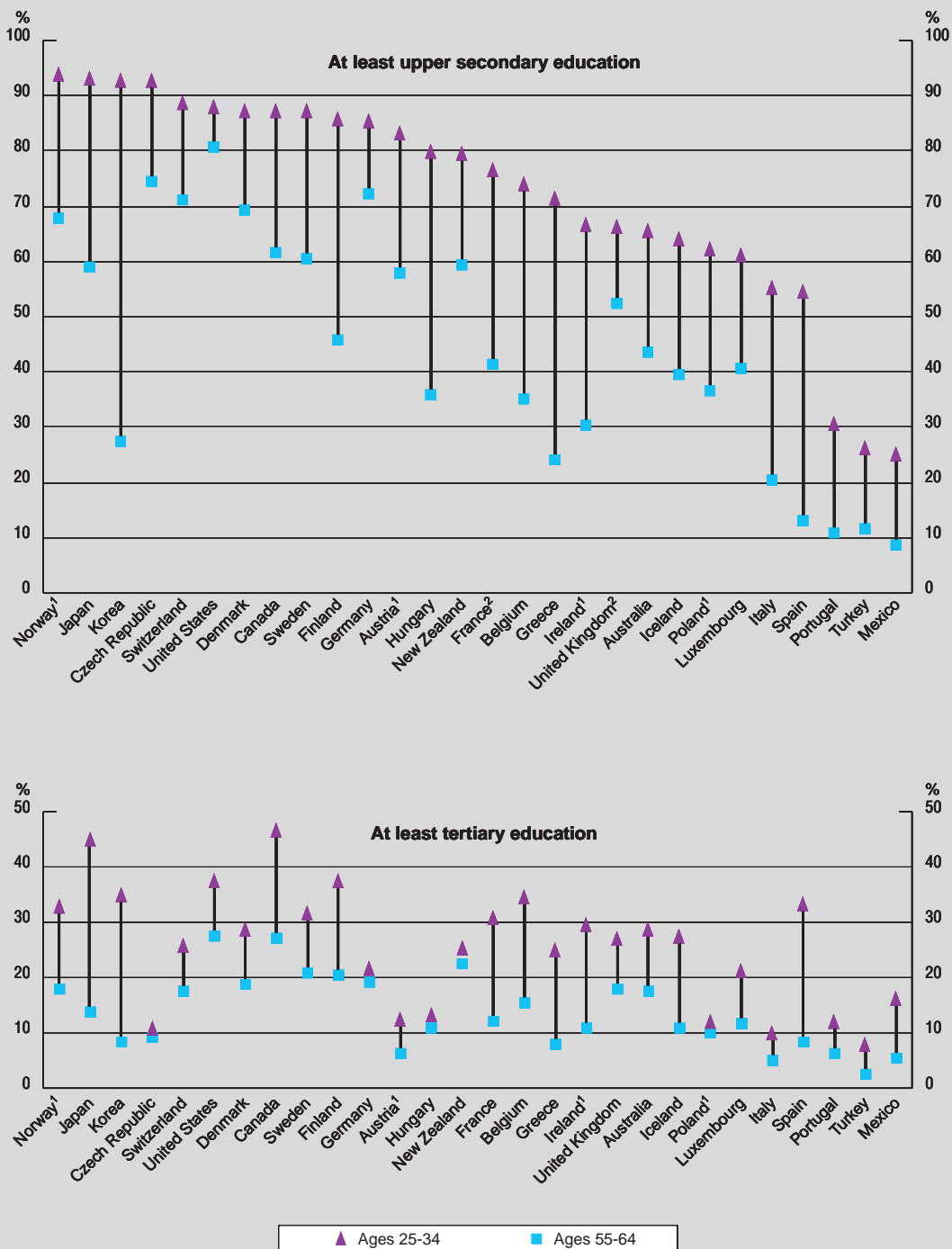
While economic growth during the past twenty years has translated into higher standards of living for most citizens of OECD countries, not all have benefited. There is no common trend across OECD countries from the mid-1980s to the mid-1990s in the proportion of people living in relative poverty, *i.e.* living on an adjusted disposable income less than 50% of the national median adjusted disposable income (Förster, 2000).³ The share of people living in relative poverty rose in some OECD countries over this period, but fell in others (Figure 2.12).

Low income is closely associated with the level and structure of employment, and with the nature of social safety nets. Most OECD countries have been successful in providing the elderly with adequate retirement income and preventing old-age poverty, although some vulnerable groups remain. But new groups at risk of poverty are emerging. In several countries, changes in labour markets, in particular high and lasting unemployment, have increased risks of low income and poverty among the working-age population. Exclusion of the long-term unemployed, combining work and family responsibilities (especially for lone parents), and the prevention of child poverty are increasingly important on the social policy agenda of all OECD countries.

OECD countries continue to put pressure on the environment, despite some progress in decoupling pollution and resource use from economic growth

OECD countries continue to put considerable pressure on their own and the global environment through unsustainable patterns of production and consumption, despite some progress in decoupling pollution and resource use from continued economic growth. Currently, with only 18% of the world's population, OECD countries account for about 80% of world GDP and consume about 50% of world energy supplies; historically they have been responsible for most of the build-up of atmospheric concentrations of greenhouse gases.

Figure 2.11. Educational attainment of the population, by age group, OECD countries, 1999



Notes: Countries are ranked in descending order of the percentage of the population 25 to 34 years of age who have completed at least upper secondary education.

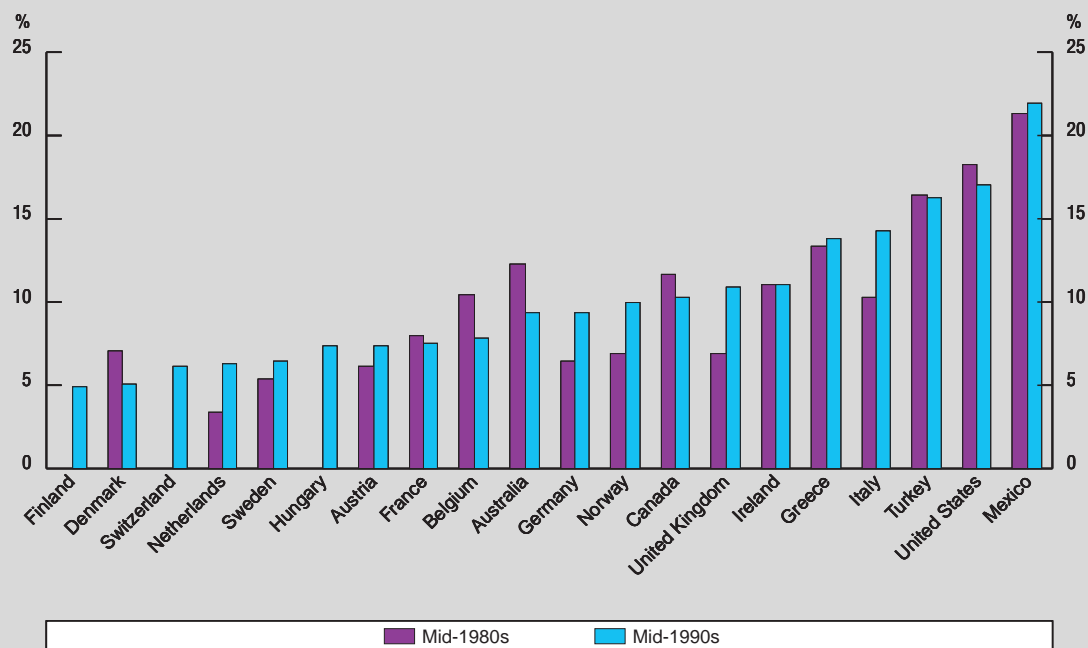
1. Year of reference 1998.

2. Not all ISCED 3 programmes meet minimum requirements for ISCED 3C long programmes.

For detailed notes see Annex 3 of OECD (2001f).

Source: OECD (2001f).

Figure 2.12. Proportion of people with low income, selected OECD countries, mid-1980s and mid-1990s



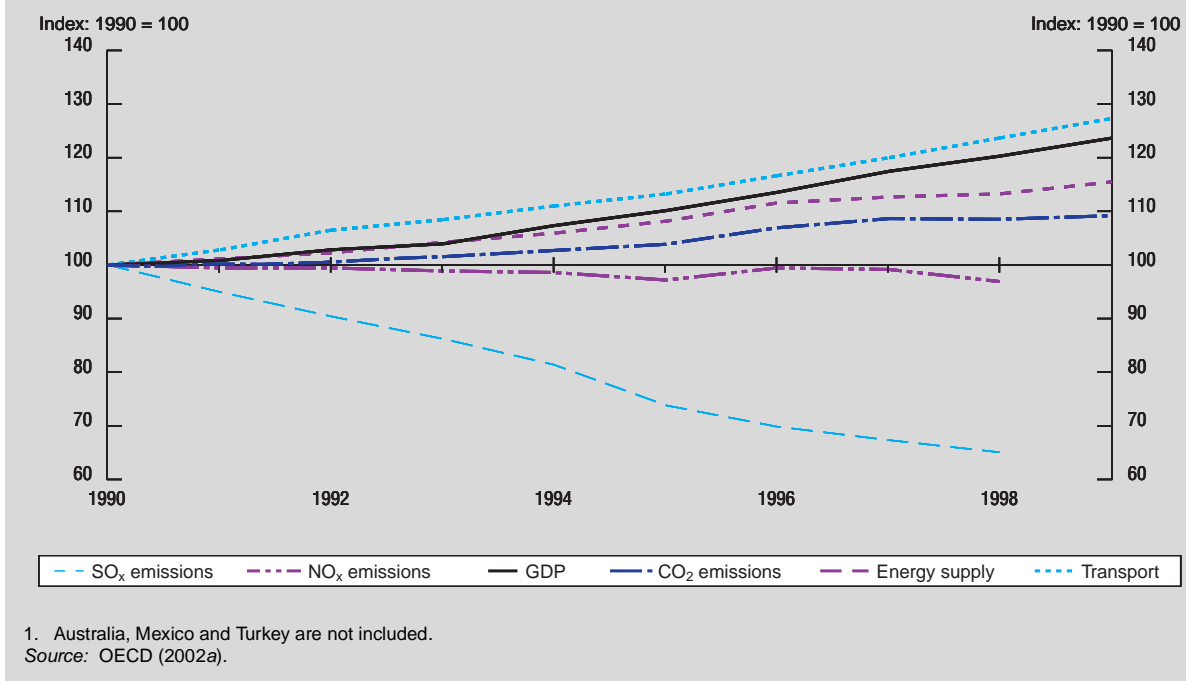
Note: Data for Mexico for the mid-1980s correspond to 1989.
Source: OECD (2001d).

Some decoupling of selected environmental pressures from economic growth has occurred in recent years. Thus, in many OECD countries, emissions and discharges of pollutants are growing more slowly than GDP or are even declining in absolute terms. The use of energy and some natural resources is also growing at a slower rate than GDP, although absolute levels continue to grow (Figure 2.13). Two main reasons explain why environmental degradation is becoming detached from economic growth. The first is the increasing demand for better environmental conditions (and hence for environmental policies) that has accompanied higher incomes and the greater availability of resources to generate and adopt less-polluting technologies. The second factor is that OECD economies are undergoing structural shifts as they grow, with more polluting industries contributing less to overall national output than in earlier decades, and knowledge-intensive services contributing more.

The key environmental challenge for the future will be to continue to further increase efficiency of resource use and to reduce the pollution intensity of consumption and production at least cost and, in particular, to tackle the problems that show little signs of becoming decoupled from economic growth. The OECD has categorised environmental issues into those for which progress has been made (green lights), those that call for continued attention (yellow lights), and those that require urgent action (red lights) (OECD, 2001b).

Progress has been achieved for some areas of environmental protection

Emissions and concentrations of some air pollutants are declining. Good air quality is necessary for the health and well-being of people and ecosystems. Among the air pollutants with the greatest impact on human health are lead, fine particulate matter, heavy metals, and ground-level ozone. The contaminants

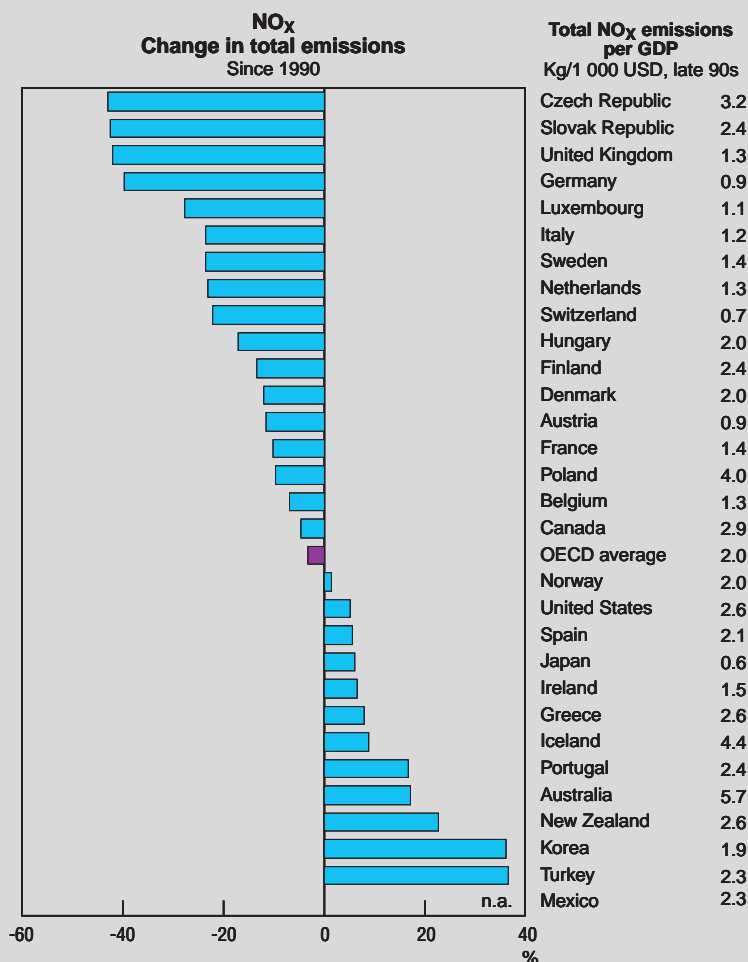
Figure 2.13. Trends in CO₂, NO_x, SO_x, total primary energy supply and road traffic related to GDP, (OECD total¹)

threatening ecosystems come primarily from those that cause acidification – sulphur oxides (SO_x), nitrogen oxides (NO_x), and ammonia – and those affecting the climate – carbon dioxide (CO₂) and methane. Four of these pollutants, lead, SO_x, NO_x, and CO₂ come from direct emissions into the air from a variety of sources. Particulate matter can also come from direct emissions, but is most commonly formed when emissions of NO_x, SO_x, ammonia, and other gases react in the atmosphere. Ground level ozone is formed when NO_x and volatile organic compounds react in the presence of sunlight.

OECD countries are making progress in reducing emissions of many air pollutants. Since 1990, they have cut their emissions of NO_x by 4% and those of SO_x by 35% (Figure 2.14). Most countries have also cut their emissions of particulate matter, and most have nearly eliminated emissions of lead. Over the same time period, OECD country GDP increased by 60%, while fossil fuel consumption and vehicle kilometres travelled – the main sources of many of these pollutants – grew by 16% and 30% respectively.

Emissions and ambient concentrations of air pollutants have fallen for a variety of reasons. Lead pollution has been cut primarily because of regulations in most countries requiring the phase-out of leaded gasoline. Reductions in emissions and concentrations of SO_x, NO_x and particulate matter are due largely to regulations that require coal-fired power plants to reduce emissions, and to economic factors that have encouraged many households and power plants to switch from coal and heavy oil towards cleaner fuels such as natural gas. NO_x emissions have also declined due to the introduction of catalytic converters for cars.

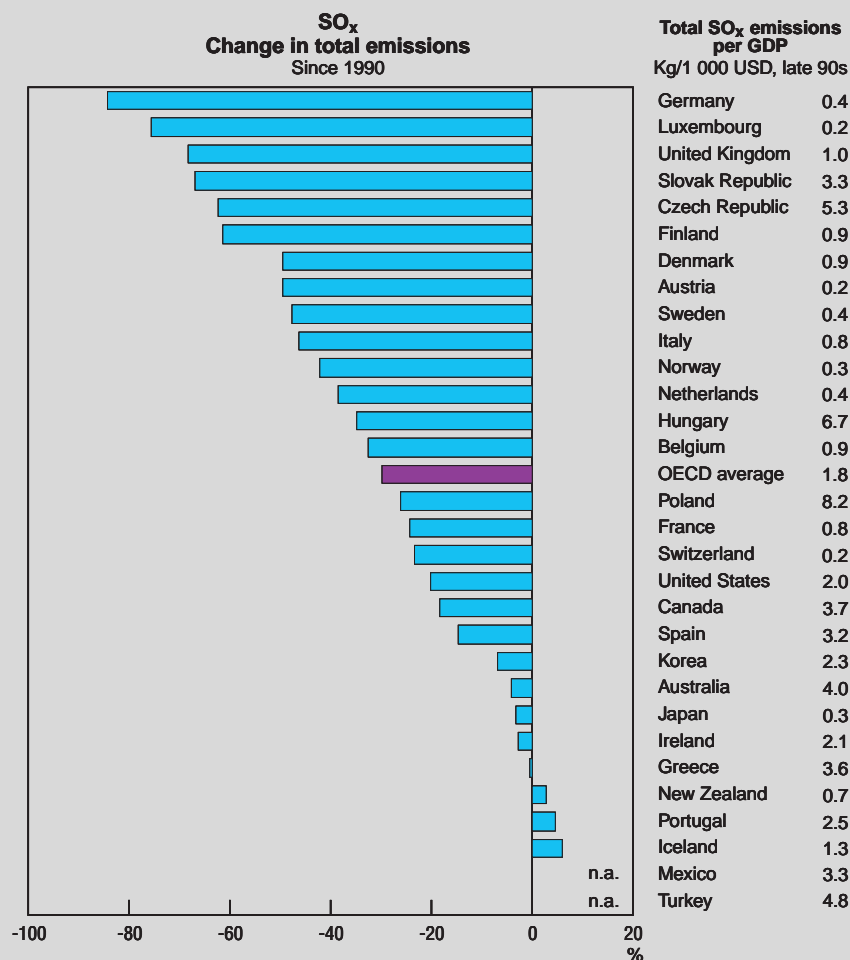
The reductions in emissions of these air pollutants have led to improved urban air quality in most OECD cities. Ambient concentrations of SO_x, NO_x, particulate matter, and lead fell during the 1990s, with the declines being especially pronounced for lead and SO_x (OECD, 2001b). Concentrations of SO_x and lead in most cities now meet the national standards set to protect human health and the environment. Although local air quality has generally improved over the past 10 years, many challenges remain for protecting public health and the environment. As levels of fine particulate matter and ground

Figure 2.14a. Change in total emission of nitrogen oxides (NO_x) since 1990, OECD countries


Source: Based on OECD (2001a; 2002b).

level ozone still exceed national standards in some areas, most OECD countries are increasingly focusing their efforts on monitoring and controlling these two pollutants.

Forest cover in OECD countries is increasing, although tropical forests continue to decline. Forests provide a range of services to people, including wood products, recreational opportunities, employment, and ecosystem services (e.g. conservation of water resources, carbon sequestration, and sheltering of wildlife). Overall, the area under forest cover has gradually increased in OECD countries since the 1970s, and is projected to remain at current levels through 2020 (Figure 2.15). This increase is primarily the result of increased agricultural efficiency, afforestation programmes, and of a reversion to wooded land of lands less suited to farming. Demand for wood products has also stabilised in OECD countries, reducing pressures to harvest trees. In contrast, forest cover in non-OECD countries is still in decline. Annual forest loss in tropical countries may have exceeded over 15 million hectares per year since 1980 (FAO, 1999).

Figure 2.14b. Total emission of sulphur oxides (SO_x) since 1990, OECD countries


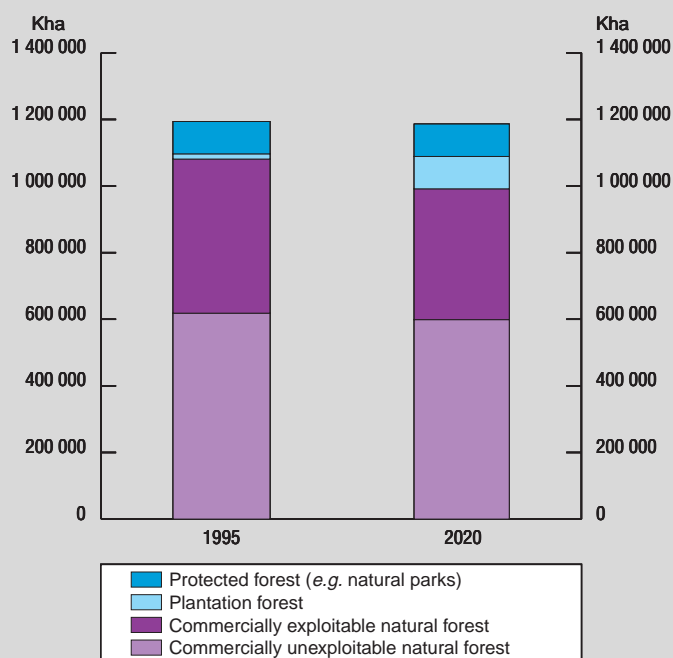
Source: Based on OECD (2001a).

A number of environmental issues continue to require attention

OECD countries have made less progress in improving the quality of river and lake water. The volume of solid waste generated is still rising, although a larger share of solid waste is being recycled, and there is a large backlog of polluted industrial and landfill sites awaiting remediation. Measures to reduce mercury pollution and to phase out persistent organic pollutants need to be intensified, while more also needs to be done to reduce concentrations of some air pollutants that are damaging to human health (fine particulate matter and ground-level ozone) and, in some regions, to use water resources more sustainably. In some countries the productivity of agricultural soil continues to be degraded by salinisation and heavy metal contamination.

Water consumption has stabilised in most OECD countries, but some regions experience water stress. Freshwater is essential to maintain ecosystems, sustain life and well-being, and promote economic development.

Figure 2.15. Recent and projected changes in forest area by forest type, OECD countries, 1995 and 2020



Source: OECD (2001b).

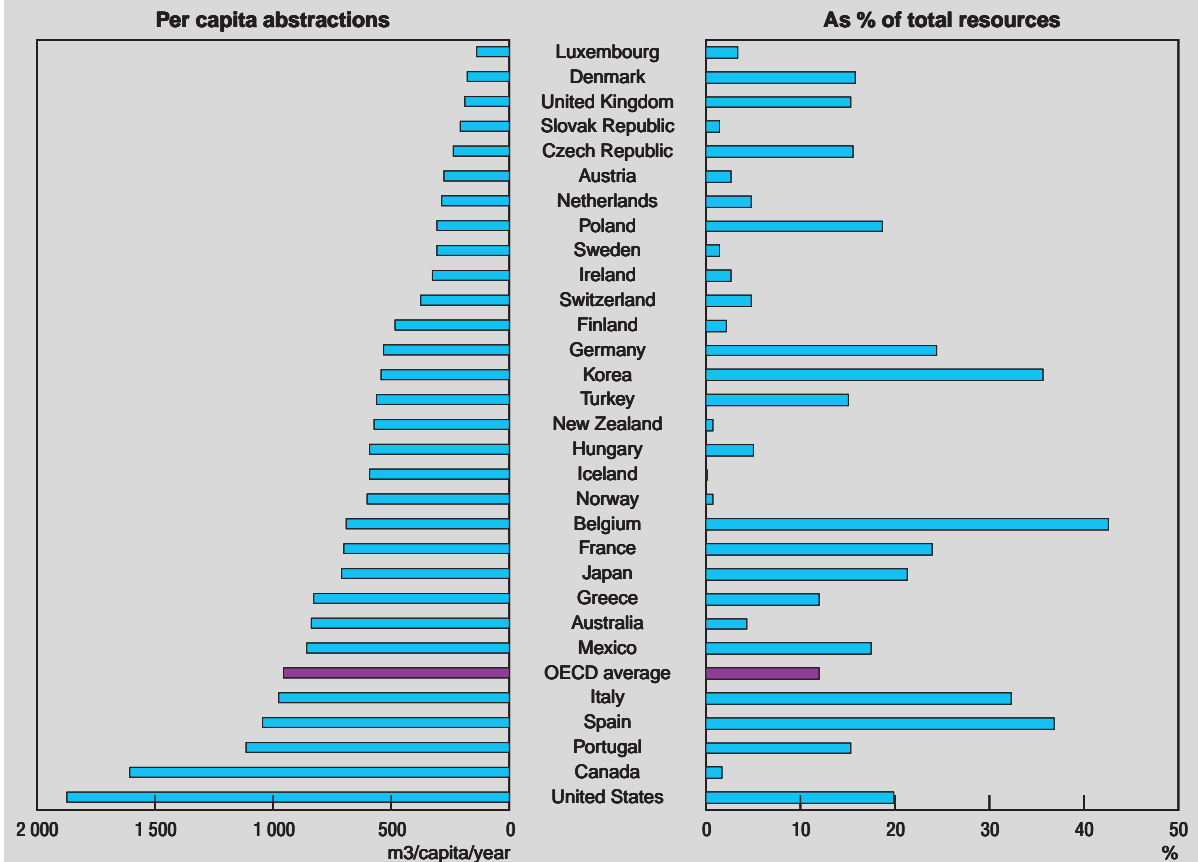
Freshwater resources also provide important recreational and aesthetic benefits. While available fresh water is abundant on a global scale, it can decline as rivers and lakes become contaminated and as water is withdrawn from underground aquifers faster than it can be replenished. At the same time, flooding in OECD countries has been exacerbated by inadequate coastal zone planning as well as by urban sprawl and infrastructure development.

Most OECD countries are well endowed with freshwater resources at the national level (Figure 2.16). However, the availability of good quality water varies significantly between countries and between different regions in the same country. While some countries are using a significant proportion of their total available water resources, for most OECD countries national water abstractions are well below levels associated with water stress. Even where water demand is within the limits of national supply, however, water stress is being seen in some regions.

Progress has been made in managing water resources in OECD countries, with per capita water consumption in OECD countries declining by 6% since 1980. The decrease reflects primarily the spread of water pricing systems that encouraged users, especially firms, and households, to use water more efficiently as well as to the spread of water-saving technologies. Declines in some water intensive industries, and increases in industrial water use efficiency, have also played a role. Despite the overall trend, per capita water consumption rose during the 1990s in some OECD countries, especially in those experiencing fast economic growth.

Quality of surface water has improved in some places, but not in others. While water quality in many surface water bodies has improved dramatically during the past ten years most OECD countries still do not meet their standards for surface water quality. Moreover, groundwater is increasingly under threat from

Figure 2.16. Gross freshwater abstractions, OECD countries, late 1990s



Source: OECD (2001a).

contamination and withdrawals that exceed the capacity of aquifers to recharge. A common pollution problem affecting many rivers, lakes, and coastal waters arises from excessive levels of nutrients, especially phosphorus and nitrates. Excessive levels of nitrates also affect underground aquifers. Nutrients stimulate growth of algae blooms, which rob the water of oxygen, killing fish and other aquatic life. Sources of organic pollutants include discharges of inadequately treated sewage from municipal treatment plants and household septic systems, runoff of fertilisers and animal waste from farms, and deposition of air pollutants.

Most OECD countries have invested heavily during the past two decades in sewage and industrial wastewater treatment facilities. These investments have helped to mute the impact of economic growth and land-use changes on the quality of river and lake water. Unfortunately, they have not led to substantial improvements in the water quality, as lower discharges from point sources of pollution have been offset by higher flows from diffuse sources, such as vehicles, urban storm-water run-off, and farms.

Quantity of solid waste is still growing. Waste is produced at all stages of the production and consumption cycle. Currently, in OECD countries, about 25% of waste comes from manufacturing, 21% from agriculture and forestry, 24% is produced by mining and quarrying, 14% results from construction and demolition, 14% from municipal sources, and the remainder from other sources. The quantities of

waste produced depend on how efficiently resources are used in production processes and the quantities of materials produced and consumed. The collection and final disposal of waste is a serious matter for local governments in OECD countries, who now spend about one-third of their total resources for pollution abatement and control on the management of solid waste.

There has been no overall decline in the quantities of waste produced in OECD countries, although the amount produced per unit of private final consumption decreased slightly during the 1990s (Figure 2.17). On average, municipal waste grew at about 1% per year in OECD countries during the 1990s, a much slower rate than the 3% per year recorded in the 1980s. Because of rising populations, increasing affluence, and changing lifestyles (such as a shift towards more and smaller households), the annual volume of solid waste generated in OECD countries is projected to grow by a further 40% between 1995 and 2020, to 770 million tons (OECD, 2001*b*). The management of waste generated is improving, however. It is projected that a rising share of municipal waste will be recycled, to reach 33% by 2020 compared with 18% currently. Furthermore, the environmental standards for both landfill disposal (the destination of 64% of current municipal waste) and incinerators (18% of current municipal waste) have improved in most OECD countries.

Several environmental problems require urgent action

Still less headway has been made in dealing with some environmental issues, especially those of global importance. Particular challenges include reducing greenhouse gas emissions, managing fisheries sustainably, reversing losses and fragmentation of critical ecosystems, and slowing the loss of green space caused by urban sprawl. Global biodiversity loss continues at an alarming pace, with critical ecosystems and the services they provide under threat (OECD, 2001*b*). There is growing concern about the widespread presence of chemicals in the environment, in terms of their potential effects on both ecosystems and human health (Box 2.2).

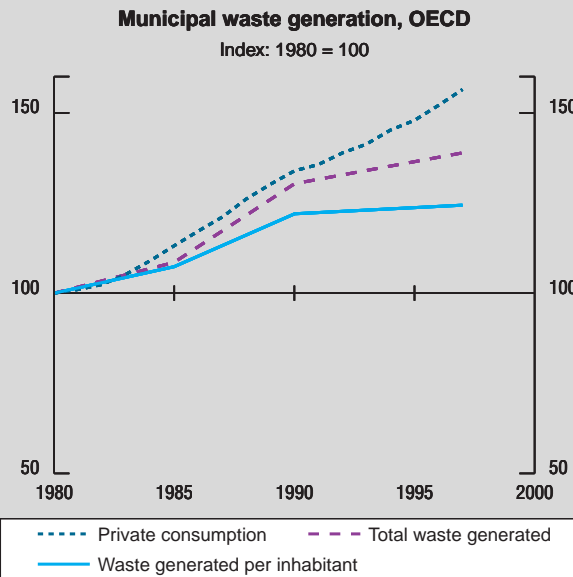
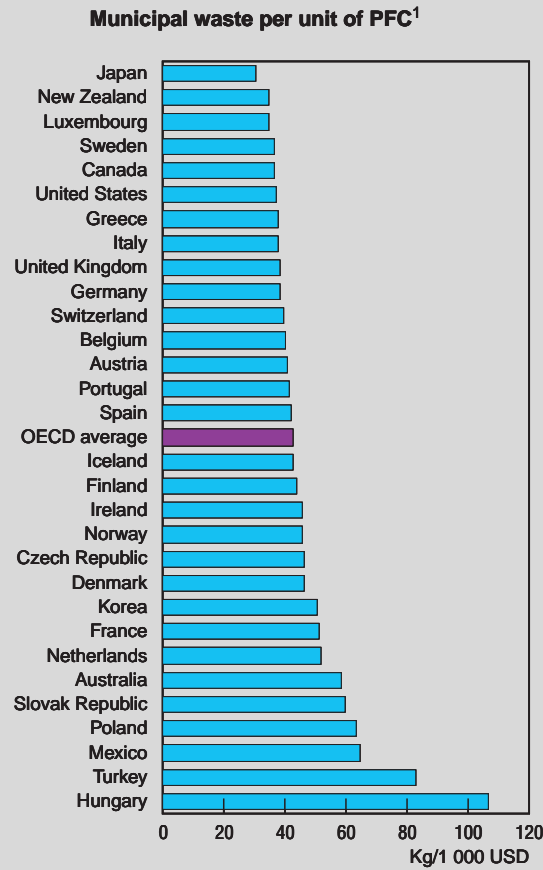
Emissions of greenhouse gases continue to grow. Recent scientific evidence indicates that human-induced global warming is a reality (IPCC, 2001*a*). Global warming is linked to a range of human activities, particularly the burning and production of fossil fuels, converting forestland to other uses, unsustainable farming practices, disposing of waste in landfills, among others. The IPCC Third Assessment Report states that climate change is already occurring and highlights evidence showing that most of the warming observed over the last fifty years is due to human activities (IPCC, 2001*a*). Human influences are expected to continue to change atmospheric composition through the 21st Century, with global average temperature and sea level projected to rise as a result.

Carbon dioxide (CO₂) is the dominant greenhouse gas, accounting for 81% of emissions from OECD countries, followed by methane (10%) and nitrous oxide (7%). Although OECD countries have reduced their emissions of CO₂ per unit of GDP by 30% since 1980, total emissions increased by 9% between 1990 and 1998 (Figure 2.18). The rise in absolute emissions is due primarily to much higher emissions from North America (increased by 11% between 1990 and 1998), which can be attributed to strong population and economic growth, energy production and consumption patterns and trends, coupled with low real energy prices during the 1990s.

Stationary fuel combustion is responsible for 59% of greenhouse gas emissions in OECD countries, followed by transport with 21% of emissions, then agriculture, industrial processes, waste, and fuel production. Transport, particularly aviation, is the fastest growing contributor to greenhouse gas emissions, with transport emissions in OECD countries having risen by 15% between 1990 and 1999.

OECD countries currently account for about 50% of global emissions of greenhouse gases and 53% of carbon dioxide (excluding land use and forestry uptake) (Figure 2.19).⁴ However, the OECD share is falling, as non-OECD countries experience faster economic growth. Projections suggest that CO₂ emissions from OECD countries could grow by 33% from 1995 to 2020, while those from non-OECD countries could grow by 100% (OECD, 2001*b*). It is encouraging that the majority of OECD countries are taking the significant and positive step forward to ratify and implement the Kyoto Protocol, with its legally binding targets and timetables. Addressing the problem of global climate change in the longer term will require

Figure 2.17. **Municipal waste generation, OECD countries, late 1990s**



1. Private final consumption expenditure calculated at 1995 prices and PPP.
Source: OECD (2001a).

Box 2.2. Chemicals in the environment

In OECD countries the production, consumption and trade of chemicals and chemical products has grown steadily and is projected to continue to grow through 2020 roughly at the same rate as GDP. However, production in OECD is expected to shift from high volume basic chemicals to speciality chemicals and products derived from the life sciences. Production in non-OECD countries is projected to grow faster than in OECD countries, as much of the production of basic chemicals shifts to these countries. The chemicals industry in OECD countries has made significant progress in reducing the release of pollutants to the environment during the manufacturing process. Pollutant Release and Transfer Registers, as well as regulations, account for much of this result.

Major concerns exist about the impact on the environment and human health of substances produced by the chemicals industry, which are found in virtually every man-made product. Many are being detected in the environment, where particular problems can be caused by persistent, bio accumulative and toxic chemicals. Concern is growing, for example, about chemicals which can lead to endocrine disruption and which persist in the environment.

Priority is given to filling the immense knowledge gap about chemicals on the market. The International Council of Chemical Associations has a testing programme for high production volume chemicals, from which data is shared with the OECD. A scientific, rules-based approach requires information on the effects of chemicals and chemical exposure as the basis for risk management decisions. A variety of instruments including economic incentives, voluntary approaches, and regulations can be used to encourage the development of better chemicals information. Where such information is not available, more and more countries are taking a precautionary approach. In addition, governments encourage industry to make safety, and not only efficacy, an important factor in the design of chemicals, so that “sustainable chemistry” can be achieved.

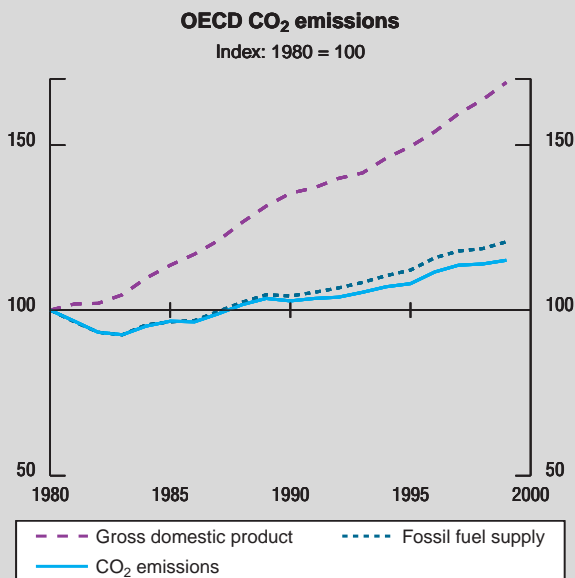
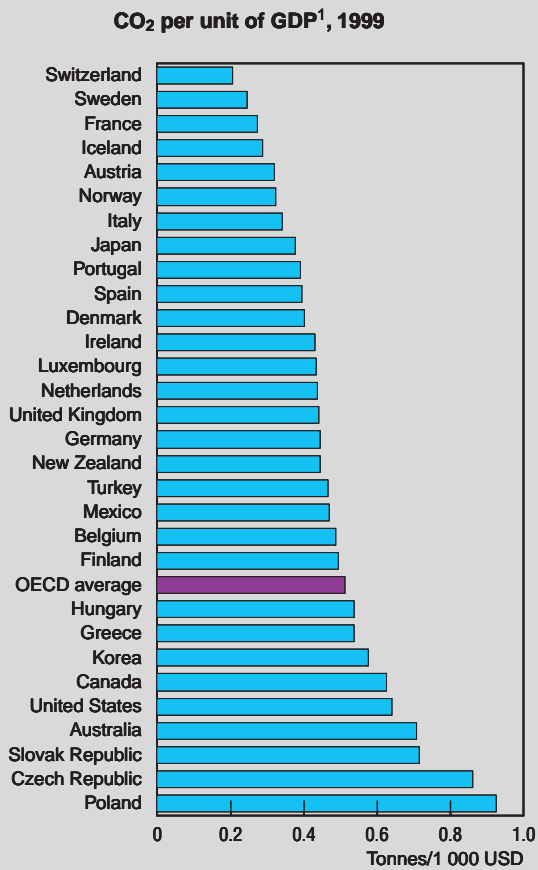
Source: OECD (2001g).

strong action by OECD countries, working in close co-operation with non-OECD countries. Historically, non-OECD countries have contributed less to the global warming problem, yet they are likely to bear a disproportionately high share of its impacts, damage, and adaptation costs (see Box 4.1). Limiting the level of climate change and its worst effects in the longer term will require all countries to take action to control their emissions in the decades to come.

Some fish stocks are not being managed in a sustainable manner. Fish stocks are a renewable resource and can be harvested sustainably, providing a source of food and incomes for the long run. Currently, however, a number of fish stocks are not being managed sustainably and stocks of many important species have declined considerably in recent years. There is concern that current fish stocks are much smaller than previously thought, due to various factors, including changes in environmental conditions, illegal fishing, and mis-reporting of fish catch by some countries. If true, urgent actions will be needed to return fish stocks to a healthy state.

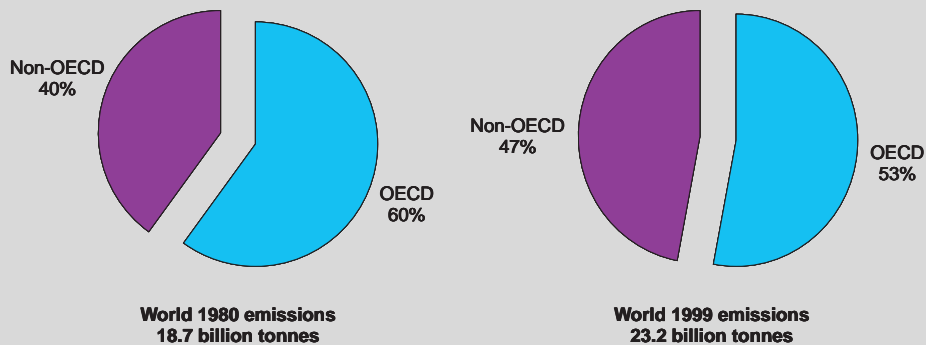
While global fish catches rose throughout most of the 1980s, they have since fallen. Total catch from OECD countries has been declining in volume terms since it peaked in the mid-1980s (Figure 2.20).⁵ As a result, the OECD country share of world catches fell from 42% in 1980 to 31% in 1999. Capture fish production from OECD countries fell for several reasons. Initially, the establishment of exclusive economic zones in the 1970s and 1980s in areas where OECD-flag distant fleets were formerly active was an important factor. As well, many of the fish stocks in the fishing regions closest to OECD countries (north Atlantic and areas of the Pacific) were already dangerously low following years of over-exploitation. Over time, commercial fishing in some of these areas has had to be sharply reduced – and even halted in a few fisheries – in order to allow stocks to recover. For marine capture fish production to increase in future, currently over-harvested stocks will need to be allowed to recover and currently under-harvested stocks to become more profitable to exploit. However, the increase would only be slight, as

Figure 2.18. Carbon dioxide emissions, OECD countries



Notes: Carbon dioxide from energy use only; international marine and aviation bunkers are excluded.
 1. At 1995 prices and PPP.
 Source: OECD (2001a).

Figure 2.19. **Carbon dioxide emissions, OECD share in world emissions, 1980 and 1999**
 Contribution of OECD countries to world emissions

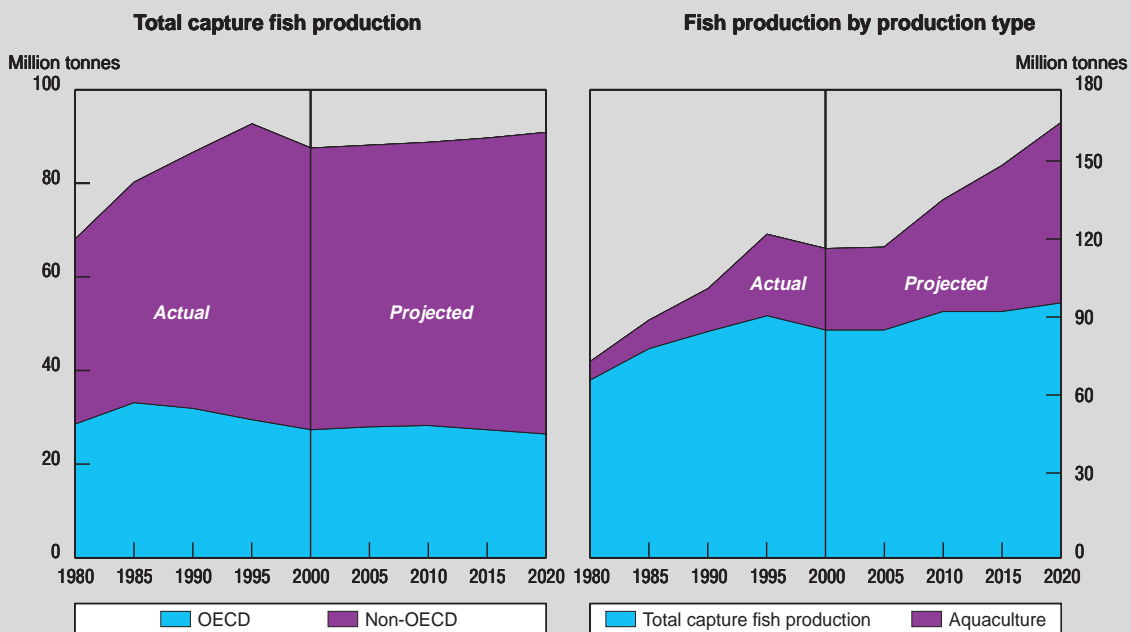


Note: Carbon dioxide emissions from energy use.
 Source: OECD (2001a).

global production is already at a level close to what scientists believe is the maximum that could be sustained.

Currently, about three-quarters of fish supplies to OECD markets come from capture fisheries, with the remainder produced by aquaculture. By contrast with marine catches, supplies from aquaculture in OECD countries have risen by 3% per year during the 1990s, while worldwide they have increased

Figure 2.20. **Historical and projected trends in world fish production by region and production type, 1980-2020**



Source: OECD (2001b).

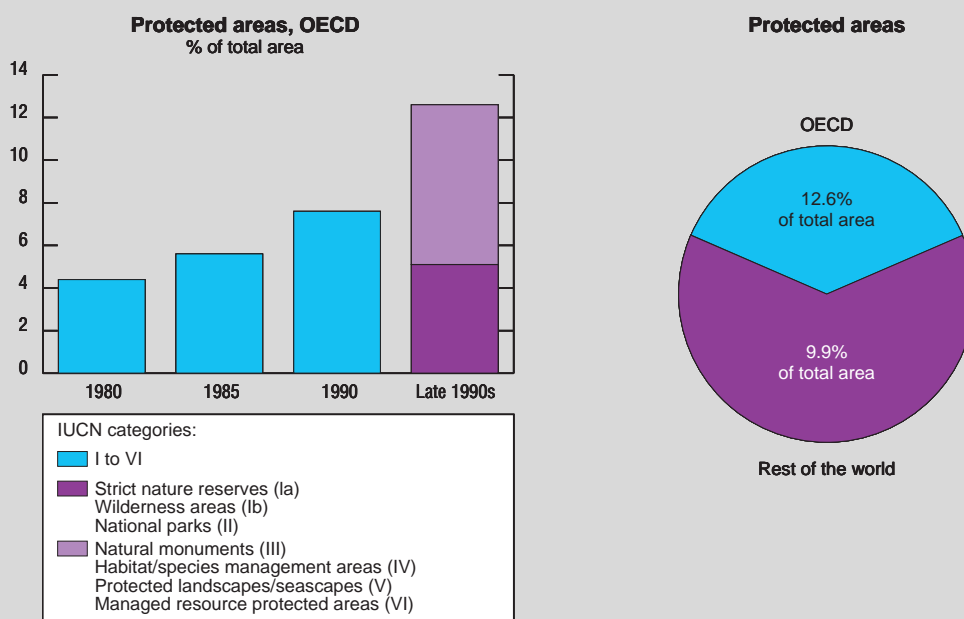
by 10% annually. Most of the future growth in fish supplies is expected to come from aquaculture, which by 2020 will represent over 40% of the total (Figure 2.20). Considerable attention is needed to manage, from the outset, some of the potentially negative impacts of intensive aquaculture production on local environments – including organic enrichment, accumulation of antibiotics, degradation of local habitats, and reductions in species diversity.

Ecosystems and biodiversity are threatened. Human activities play a significant role in shaping both marine and terrestrial ecosystems and biodiversity. The greatest threat to ecosystems and biodiversity in OECD countries arise from land use changes and fragmentation as populations increase and lifestyles change. Threats also arise from unsustainable exploitation of wildlife, forest products, and water, as well as from pollution and the introduction of exotic species. As a result of these pressures, many natural ecosystems have been degraded or destroyed, seriously limiting the many important services they provide.

However, despite the considerable pressures on ecosystems and biodiversity, there are some positive developments. The number of protected areas is increasing in many OECD countries, and some countries are increasing the level of protection they provide to parks. Land areas under protection reached 13% of the total area of OECD countries as a whole (Figure 2.21). Countries have also taken action to protect endangered species from hunting or the destruction of their habitat. As a result, populations of some formerly threatened species have stabilised or are even increasing. Still, 20% of mammals and amphibians in OECD countries are endangered or vulnerable. In some countries, for example New Zealand, the development of biodiversity strategies has helped to halt biodiversity losses. Greater efforts are required in most countries, however, to decouple pressures on critical ecosystems and biodiversity from economic growth.

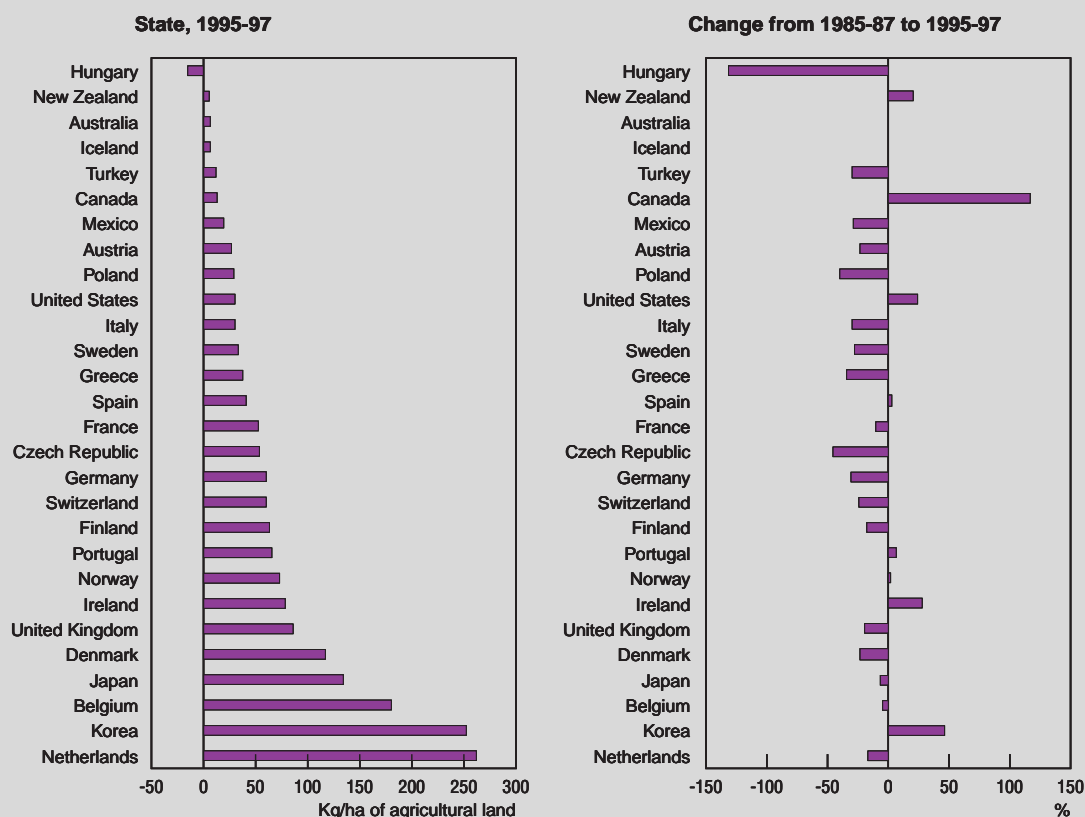
Agricultural pollution is increasingly affecting water resources. Agriculture is estimated to be responsible for 40% of nitrogen emissions and 30% of phosphorous emissions into surface water in OECD countries (Figure 2.22), and is the main source of surface and groundwater pollution (OECD,

Figure 2.21. Protected areas



Source: OECD (2001a).

Figure 2.22. Nitrogen balances in agriculture, OECD countries



Source: OECD (2001a).

2001). Methane and nitrous oxide emissions from livestock operations and rice production also contribute to global warming. The use of pesticides and their build-up in groundwater and surface water resources poses risks to the health of people and to wildlife. Groundwater systems are increasingly under threat from contamination and withdrawals that exceed the capacity of aquifers to recharge.

Support for improved environmental management in developing countries remains at low levels. Most of the world's plant and animal species and the ecosystems on which they depend are in non-OECD countries. These face great pressures from population growth, economic development, and climate change. While these species and ecosystems lie within the territories of sovereign states, they are global resources important to all the world's people. Similarly, global climate change affects everyone, regardless of where they live. During the United Nations Conference on Development and Environment in Rio de Janeiro in 1992, countries committed themselves to implement the Convention on Biological Diversity and the UN Framework Convention on Climate Change, and (since then) the Convention to Combat Desertification. Some institutions or mechanisms, such as the Global Environment Facility (GEF) and the Montreal Protocol Multilateral Fund provide financial support to enable countries to comply with multilateral environmental agreements or conventions, but overall transfers to support environmental management remain low.

OECD countries are making some progress in improving governance for sustainable development

One of the most important ways in which current generations can contribute to sustainable development is by establishing institutions that ensure the stable functioning of societies and economies, encourage innovation and creativity, and provide the framework within which all citizens can achieve their potential. Achieving these goals requires, above all, approaches to governance that foster citizen participation in policy-making and that promote integrity, transparency, and accountability in the management of public resources. Many OECD countries have taken important steps in this direction during the 1990s.

Integrity, transparency, and accountability are necessary for good governance

Integrity, transparency, and accountability are fundamental conditions for governments to provide a trustworthy and effective framework for the social, environmental, and economic life of their citizens. Citizens expect public servants to serve the public interest with fairness and to manage public resources properly on a daily basis. OECD countries have been working together to promote good governance in both the public and private spheres, including through recent initiatives such as the 1998 OECD Recommendation on Improving Ethical Conduct in the Public Service, the 1997 OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, the OECD Guidelines for Multinational Enterprises, and the OECD Principles of Corporate Governance.

The rapidly changing socio-economic conditions, especially the growing demand for transparency, requires that governments review and adjust mechanisms to ensure that behaviour corresponds to what is expected, in accordance with the cultural and political-administrative structure of each country. The following key elements are needed for a strong and coherent ethics infrastructure that ensures high standards of conduct:

- *Guidance*: provided by strong commitment from political leadership, statements of values such as codes of conduct, and professional socialisation activities such as education and training.
- *Management*: realised through co-ordination by a special body or an existing central agency, and through public service conditions, management policies and practices.
- *Control*: assured primarily through a legal framework enabling independent investigation and prosecution, effective accountability and control mechanisms, transparency, public involvement and scrutiny.

A key challenge for governments is to adapt the mission of the public service to current needs and to ensure that its core values and standards meet rapidly changing public expectations. A modern set of core values should combine “traditional” values, such as impartiality, legality and integrity, with “new” values such as greater public accountability and transparency. To translate these values into practice, governments need to legislate some standards of conduct, particularly in relation to using official information and public resources, receiving gifts or benefits and working outside the public service. Sensitive areas with a higher potential risk of conflict of interest, such as justice, tax and customs administration as well as the political/administrative interface similarly call for the development of special standards. Governments can take advantage of new technology to inform citizens on standards expected of officials serving the public and scrutinise the actual performance of public officials.

Effective compliance and enforcement efforts are necessary to ensure good governance through the rule of law

Compliance with laws and regulations established to protect the environment is a necessary component of any national effort to achieve sustainable development. The effectiveness of environmental laws and regulations depends on effective compliance and enforcement programmes to regulate entities and deter against non-compliance, and reduce or eliminate the benefits that might otherwise accrue to those who fail to comply with environmental laws and regulations.

An effective compliance and enforcement program includes numerous methods of monitoring and detection. Common compliance monitoring techniques in OECD countries include inspections, self-monitoring and self-reporting, and citizen complaints. Inspections are conducted by government inspectors or independent parties working on behalf of the government. Self-reporting is conducted by regulated entities that monitor their own compliance with environmental laws and regulations and report the results to government. These techniques can be supplemented by encouraging citizens to report illegal or unlawful activities. While OECD governments are vested with primary enforcement authority, legal actions brought by citizens to enforce environmental laws and regulations can provide critical support to government enforcement efforts.

Opportunities for citizen participation are expanding

Governance systems in all OECD countries are based on the principles of representative democracy. Free and fair elections, representative assemblies, accountable executives, and a politically neutral public administration are elements of representative democracy, designed to ensure that government represents the citizens. Strengthening mechanisms for citizen participation in policy-making improves the quality, credibility, and legitimacy of decisions. It allows governments to tap new ideas, information, perspectives, and potential solutions in making decisions. It also helps build public trust in government and to strengthen democracy. In response to public demand, new forms of representation and types of participation are emerging in OECD countries, and long-standing ones are being revitalised. Widespread access to new information and communications technologies (ICT) are expanding the opportunities for citizens to influence decisions that affect them.

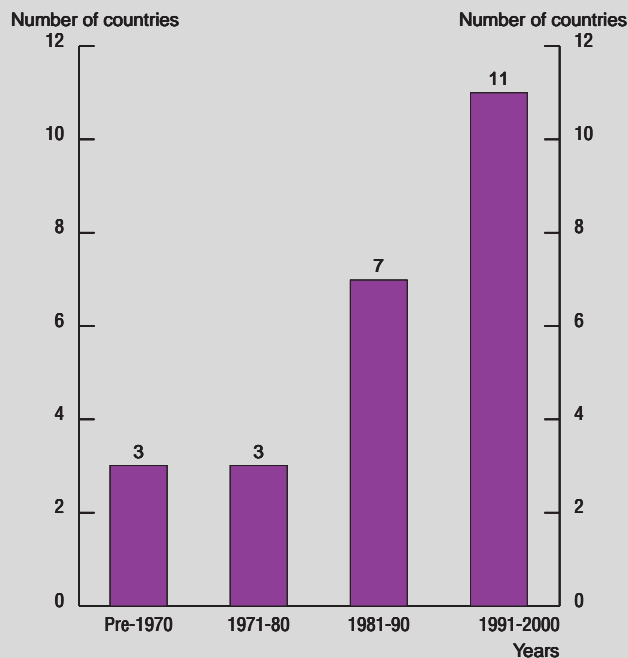
Measures to enhance public participation fall into three categories, depending on the extent and depth to which citizens are involved in decision-making. The first is a one-way flow of information. This includes public notices, public information campaigns, or simply making information available to those who seek it. The second is consultation – a two-way relationship in which citizens provide feedback to government, through surveys and focus groups as well as more interactive forms such as public hearings and solicitation of public comments. Governments define the issues for consultation, formulate the questions and manage the process, while citizens are invited to contribute their views and opinions. The third is active participation – a relationship based on partnership with government, in which citizens actively engage in defining the process and content of policy-making. This process gives equal standing to citizens and governments in setting the agenda, proposing policy options, and shaping the policy dialogue, although the final decision rests with government (OECD, 2001i).

While most OECD countries have long-standing traditions of engaging citizens in decision-making, all have taken steps during the 1990s to bring government closer to the people. A prominent international example is the UN/ECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention, 1998). The Convention, which entered into force on 3 October 2001, has been signed by 40 countries and ratified by 17. It aims at strengthening civic involvement in environmental issues, including through internationally binding recognition of information, participation possibilities; access to justice in environmental issues as every person's right; the establishment of minimum standards for access to environmental information; and requirements for rapid replies to requests for environmental information.

Provision of information is now an objective shared by all OECD countries. Laws establishing the right to information – as well as the institutional mechanisms to enforce these rights – form the basic building blocks for transparency and accountability. The scope, quantity, and quality of information that OECD governments are providing to citizens increased greatly during the 1990s. While some OECD countries adopted legislation decades ago guaranteeing citizens access to information, nearly 40% did so during the past decade (Figure 2.23). All but a few countries now have freedom of information laws in place.

Consultation is on the rise, but slowly. Most OECD countries have only recently recognised the importance of consulting with citizens on a regular basis, and most are still developing their legal, policy, and institutional frameworks for consultation. Large differences remain between countries with long-established

Figure 2.23. Decade when OECD countries first introduced legislation guaranteeing access to information



Source: OECD (2001).

traditions of consultation and countries that are only beginning to open up government processes to citizens. There are also large differences among countries in the balance between public and private financing of electoral campaigns and in limitations placed on the activities of lobbyists.

During the 1990s, several countries adopted policies requiring governments to hold public consultations on new regulations, in line with the 1995 OECD Council Recommendation on improving the quality of government regulation. Many countries, as well as the European Union, adopted laws on environmental impact assessment that give the public a prominent role in determining the fate of potentially environmentally-damaging projects or regulations. Some have established permanent or *ad hoc* bodies that include civil society organisations to advise the government on particular issues.

Active participation is still rare. Citizens can make an active and original contribution to policy-making when their relationship with the government is founded on the principle of partnership. In OECD countries, efforts to engage citizens as full partners in policy-making remain rare, tend to be undertaken on a pilot basis only, and are confined to very few countries. While a few countries began during the 1990s to develop policies to more actively engage citizens in decision-making, most have limited their activities to collecting good practice examples, raising awareness, and developing guidelines for participation. Active participation to achieve domestic good governance is most effective when members of the public have access to administrative and judicial appeals processes to challenge government and private sector actions that may impact on them.

Public participation can foster greater transparency in policy-making and encourage accountability through direct public scrutiny and oversight, increase trust in institutions, and improve the substantive quality of decisions. Participation also helps participants to understand the goals and perspectives of

others by fostering communication and building relationships. Finally, public involvement can help reduce opposition to decisions, smoothing their implementation.

However, creating mechanisms for participation that achieves these goals poses significant challenges. Are surveys better, or public forums? How can we assess whether the aspirations and interests of the broad public, not just those of lobbyists, are taken into account? How can differences in expert and lay judgements of risks and priorities be resolved? How much time and resources should be devoted to participatory processes addressing particular issues? How can the impact of participatory processes be measured? These are questions which OECD countries are just beginning to explore, and the answers are not yet clear.

New approaches to international governance are emerging

Today, many challenges which could previously be dealt with at the national level have become global. Action at the global level is essential for a number of issues – such as regulation of the internet, arresting climate change, avoiding financial bubbles, halting the spread of epidemics such as HIV/AIDS, and preventing terrorism – but should be complemented by action at the regional, national, and local level. Successfully addressing issues of global importance calls for new systems that allow these issues to be addressed at the international level. OECD countries have actively supported the development of better structures for international governance during the 1990s, and place high priority on this issue for the future.

3

OVERCOMING THE BARRIERS TO SUSTAINABLE DEVELOPMENT

Maintaining the high standard of living that citizens of OECD countries enjoy, while addressing social concerns and improving environmental management, is a challenge. It requires the reform of old policies, the development of new ones, and the better implementation of those known to be effective. Key framework conditions necessary to achieve this goal within specific countries include:

- *Making markets work for sustainable development*: the reform of the price system to encourage individual agents to take the full costs of environmental degradation and social impacts into account in their decisions. This includes: taking account of environmental and social externalities and market failures through greater use of taxes, charges and tradable permits; and correcting policy failures through reforms of support programmes that are environmentally damaging, economically inefficient, and/or have socially regressive distribution effects.
- *Strengthening the process of decision-making for sustainable development*: the reform of government decision-making processes to allow more integrative approaches to the full range of consequences of their policies. This includes improving the capacity for policy integration for sustainable development and enhancing transparency and public participation at all levels of government.
- *Fostering sustainable development through science and technology*: the use of technology policies to help decouple environmental degradation from economic growth. This includes providing permanent incentives to innovate and diffuse technologies that support sustainable development objectives; supporting long-term basic research and research that is clearly in the public interest through funding and efforts to build capacity; and addressing unintended social or environmental consequences of technology.

Strengthening the contribution of the international trade and investment systems to sustainable development worldwide is another key framework condition (see Chapter 4).

OECD countries have made progress towards applying these framework conditions, and in recognising the mix of policy instruments that can help to achieve improvements simultaneously across all three dimensions of sustainable development. The mix of policy instruments required to address a particular issue or that will be appropriate in a particular country will vary depending on circumstances, but the conditions outlined in the following sections provide an essential framework in which to develop appropriate policies.

In many cases, however, significant obstacles – both political and reflecting a lack of adequate information – have slowed or even blocked progress in implementing appropriate policies. Essential for overcoming these obstacles and realising sustainable development is the integration of environmental and social concerns with economic and sectoral policies. Achieving this integration requires institutions

and governance structures that can balance the sometimes competing objectives between the different dimensions of sustainable development.

Making markets work for sustainable development

OECD countries have historically intervened in domestic and international markets through a range of measures, including subsidies, taxes, regulations, trade barriers, and price controls. Most OECD countries have been reforming their policies over the past decade to expand the role of markets in allocating resources in order to improve the efficiency and flexibility of their economic systems, and to internalise external social and environmental costs, although many distortions remain. Many countries have reformed their tax systems, reducing income taxes and increasing the contribution of consumption taxes in total tax revenues. A number have taken steps to reduce or reform subsidies, lessen trade barriers, eliminate price controls, and taken other measures to de-regulate markets. A few of the more prominent reforms with implications for sustainable development are described below, as are the limitations of the reforms implemented thus far.

The use of environmentally related taxes and charges is expanding

Several OECD countries introduced or increased the use of their environmentally related taxes during the 1990s, as part of a general trend towards green tax reform (see, for example, Box 3.1).⁶ Environmental taxes provide direct incentives for consumers or producers to alter their choices which negatively impact the environment, while allowing them the maximum flexibility in how they do so. If properly designed, they can be economically efficient and environmentally effective. A number of OECD countries have used higher revenues from environmentally related taxes to finance reductions in other taxes, such as social security or income taxes (OECD 2001j). By shifting the tax burden from labour to pollution, some expect to combine an increase in employment with an improvement in the environment (the “double dividend” effect), although evidence of such an effect is not conclusive so far.

While some OECD countries increased the shares of environmentally related taxes in their total tax revenues over the last decade, others reduced them (Figure 3.1). Revenues in OECD countries from environmentally related taxes amounted to 7% of total OECD tax revenues, or 2.5% of GDP in 1997. Environmentally related taxes in OECD countries are heavily concentrated on motor fuels and vehicles, with revenues from these sources contributing to more than 90% of the total. Taxes on waste collection, disposal and treatment; water abstraction; mineral extraction; pollution; and packaging make up the

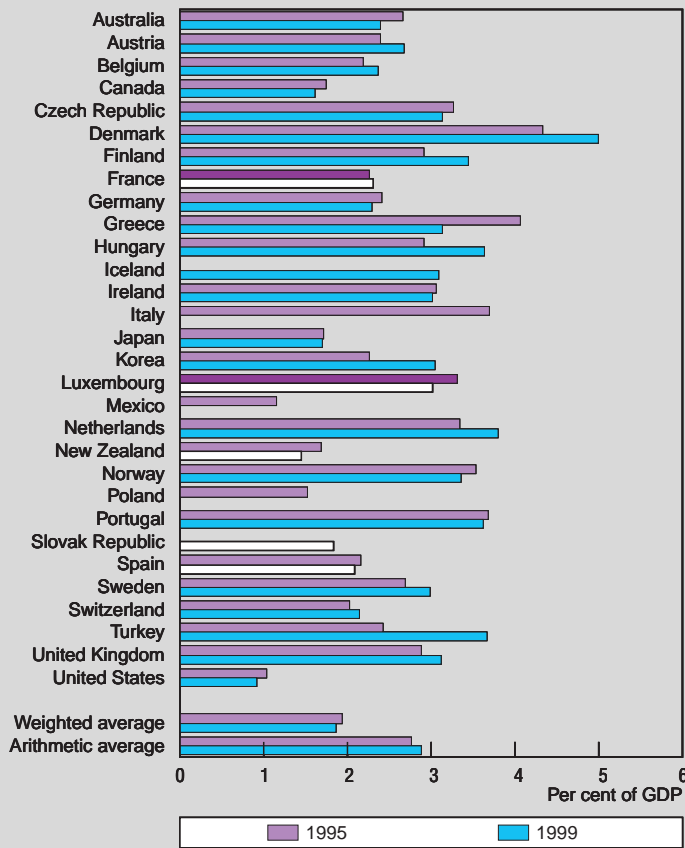
Box 3.1. Ecological tax reform: the German experience

A recent example of green tax policy is the German tax reform of 1999, which comprised an increase of mineral oil duties and electricity taxes. The extra revenue is used to reduce pensions insurance contributions by 0.8 percentage point (half in employees’ and half in employers’ contributions), as part of a comprehensive reform aimed at achieving a “double dividend”. In a second phase of the reform, the tax rate on mineral oil is being increased by 0.03 € per litre, and on electricity by 0.0026 € per kWh per year between 2000 and 2003. The pensions insurance contributions are being correspondingly reduced by 0.1% in 2000, and will be reduced by a further 0.3% per year through 2003, amounting to a total cut of 1%.

The tax reform represents an explicit policy of tax shifting, designed to reduce both CO₂ emissions and unemployment. In addition to the reductions in insurance contributions, a portion of the revenues raised is used in a market incentive programme for renewable energies. Initial reviews indicate that the tax reform has decreased fuel consumption in Germany, and encouraged markets for less environmentally damaging vehicles and rail transport.

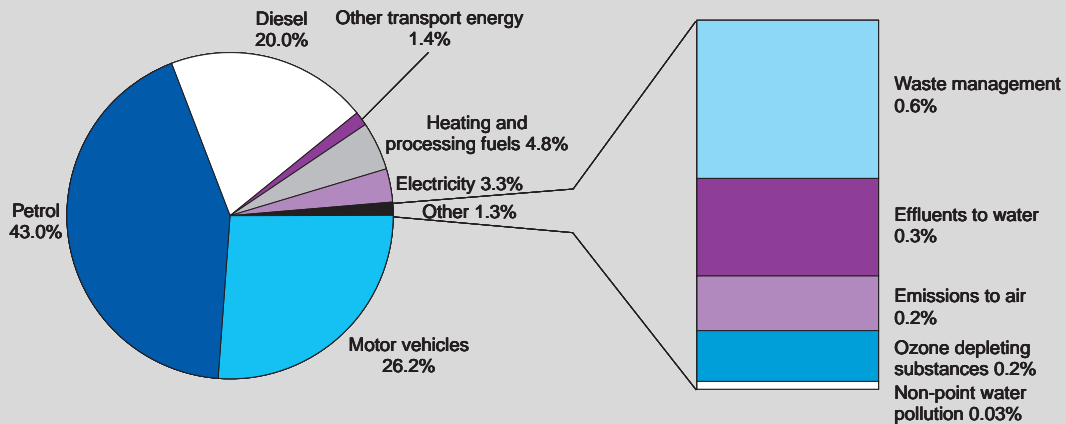
Source: Based on OECD, 2001j.

Figure 3.1. Revenues from environmentally related taxes as a share of GDP



Note: All data for France, Luxembourg, the Slovak Republic and the 1999 data for New Zealand and Spain are low-end Secretariat estimates.

Proportion of revenues raised from environmentally related taxes, OECD countries¹, 1995



1. Data cover 21 OECD Member countries.
Source: OECD/EC, Database on environmentally related taxes.

remaining 10%. Ideally, the taxes should be set to reflect the full external environmental and/or social costs of consumption and production decisions, thus internalising those external costs into the decisions in addition to the private costs. For transport, for example, external costs include the effects of pollution on ecosystems and health, greenhouse gas emissions, road accident costs, noise, and congestion costs. Taxes should be applied to all energy sources – fossil fuels, nuclear power, renewable energy sources, etc. – at levels that fully reflect the social and environmental external costs and benefits associated with their use, to ensure the optimal level of energy use and balance between these fuel sources.

However, few environmental taxes in OECD countries have been set based on an explicit assessment of external costs. Sometimes taxes set on competing products (*e.g.* different fuel sources) are set such that the more polluting option is taxed less, rather than more. Thus, OECD countries impose no or low taxes on coal or coke, even though their combustion results in much higher emissions of carbon, sulphur, and particulate matter than more heavily-taxed alternatives such as natural gas. Similarly, most countries have imposed much higher taxes on petrol than on diesel, although from an environmental perspective, diesel has traditionally been more polluting than petrol, particularly in terms of small particulates.

Furthermore, most of the environmental taxes applied in OECD countries fall on consumers, while producers – particularly large energy-intensive industries – receive significant exemptions and tax rebates. These exemptions and reductions significantly limit the effectiveness of these taxes to reduce emissions or other environmental pressures at least cost. In general, these reductions and exemptions are provided to reduce the potential negative impacts of the taxes on the competitiveness of the industry affected when international competitors are not similarly taxed. But alternative solutions exist that can preserve the incentive to substitute, while maintaining an even playing field for the sector (see pages 57-59).

The use of environmental taxes and charges appears to have been effective in achieving a number of environmental goals. In Denmark, the tonnes of cadmium batteries turned in for safe disposal tripled in the twelve months following the introduction, in 1996, of a tax-rebate scheme on the batteries. In Brisbane, Australia, water demand fell by 20% in the two years following the adoption of volume based water charges in 1995-1996 (OECD, 2001j). The higher taxes on petrol and vehicles in Europe compared with the US, along with geography and infrastructure, has contributed to a per capita consumption of fuel for transportation in Europe that is one-third lower than in the US. And general increases in household water prices in OECD countries have resulted in reductions in per capita water use in almost half of all OECD countries (Box 3.2). The effectiveness, however, of environmentally related taxes depends on many factors, such as whether reasonable substitutes are available (*e.g.* lithium batteries), and whether the tax rate applied is sufficient to induce behavioural changes.

Box 3.2. Water pricing schemes are spreading in OECD countries

During the 1990s, many OECD countries introduced comprehensive water pricing schemes. These were designed to shift the burden of financing water supply and wastewater treatment systems away from taxpayers and towards users. Increasingly, OECD countries are designing their water pricing schemes to encourage more efficient use of scarce water resources, introducing volume based charges, rather than flat rates for water use. The greatest progress towards full cost recovery water prices has been made for municipal water supply and industrial water abstraction charges. During the 1990s, households in nearly all OECD countries faced real increases in their water bills. In five of the twenty countries for which data are available, the real increases exceeded 6% per year.

Less progress has been made in reforming pricing systems for irrigation water. In most OECD countries, tariffs for agricultural water use continue to be based on surface area irrigated. Moreover, farmers typically pay just the operating costs of supplying water, while taxpayers finance the capital costs. In some OECD countries, farmers pay nothing at all for irrigation water.

Source: OECD (1999c).

OECD countries are reforming subsidy schemes, but the pace is slow and uneven

Many OECD countries committed to reducing their subsidies to energy production or fuel (such as coal), or to reducing and changing the structure of their support in some sectors (*e.g.* to agriculture) to reduce the negative effects on trade, the economy, and the environment. Progress, however, has been slow (Table 3.1). Subsidies for energy production in OECD countries, intended mainly to protect domestic producers and maintain employment in these industries, are estimated to be around USD 20 billion per year (IEA, 2001). A third of these energy subsidies support coal production, although coal subsidies in OECD countries fell by 55% between 1991 and 2000 (IEA, 2001).⁷ Subsidised production is expected to decline further over the next few years, as several OECD countries plan to phase out their remaining subsidies.

Table 3.1. Trends in subsidy levels in OECD countries

	Billion USD		Comparison
	1990	Most recent data [date]	
Agriculture	351	311 [2001]	Equivalent to 1.3% of GDP
Marine capture fisheries	..	6 [1999]	Equivalent to 18% of landed value
Coal production	11	6 [1998]	
Industry	44	..	

Notes: Data are not comparable across sectors. Agriculture: total support estimate for agriculture. Including market price support and general services support. Fisheries: government financial transfers to marine capture fisheries, does not include market price support. The 1999 estimate excludes data for Australia, Belgium, Canada, Mexico, the Netherlands, Poland and Turkey. Coal production: producer support equivalent in selected OECD countries (Germany, Japan, Spain, Turkey, UK). Industry: reported net government expenditures to industry.

Source: OECD (2001i; 2001f; 2002c).

Government financial transfers to the marine capture fishery sector in OECD countries amounted to around USD 6 billion in 1999, representing 18% of the total value of landings (OECD, 2001j). Most transfers now go to general services devoted to fisheries infrastructure and to expenditure on activities for ensuring the sustainable use of fish stocks and the aquatic ecosystem. Over the years, however, some transfers have contributed to over-capacity in fishing fleets and to over-fishing of some fisheries. Many of these transfers still persist, and are preventing or inhibiting necessary structural adjustments. In recent years, OECD countries have increasingly been directing transfers towards removing capacity. In 1997, they spent USD 350 million to decommission vessels and retire licenses (OECD, 2000c). In the absence of adequate harvest and participation controls, however, payments aimed at reducing fishing effort have not improved the sustainability of resource use, as vessels that remain are both more efficient at harvesting fish and are employed for longer hours. Ensuring coherence between transfer policies and resource management policies can reduce the negative environmental impacts of some types of transfers. Furthermore, some of the incentives for vessel retirement in OECD countries have led to an export of this excess fishing capacity to non-OECD countries, contributing to over-exploitation of resources in their fisheries as well.

Subsidies for agriculture remain stubbornly high. In 2001, total support estimates to agriculture amounted to USD 311 billion (OECD, 2002c), or 1.3% of GDP in OECD countries. While during the 1990s many OECD countries began to take steps to reduce and restructure the subsidies so as to discourage overproduction, reduce trade distortions, and encourage more environmentally sound use of land, soil, and water, subsidies remain high in many OECD countries and for some commodities, with harmful environmental consequences. In 2001, total support estimate to agricultural producers was 31% of the value of farm receipts, compared with 38% in the 1986-1988 period.

Some OECD countries restructured their agricultural subsidy systems to reduce the distortions in production and trade that arise from market price support, shifting support to direct payments instead. Nevertheless, by 2001, market price support and output payments still accounted for nearly 70% of producer support, although it declined from over 80% in 1986-1988. To the extent that support is

necessary, support provided through targeted budgetary measures is preferable to price supports or subsidies tied to the use of inputs. The former are generally more transparent, potentially less distorting of product markets, less environmentally damaging, and can be more effectively targeted. In implementing the Agricultural Agreement of the Uruguay Round of Multilateral trade negotiations, OECD countries also started to increase access to their domestic markets and reduce export subsidies for agricultural products.

Not all subsidies are bad for the environment. Some are used to support the generation of environmental benefits. OECD countries are increasingly linking agricultural support payments to farmers' taking action to improve the environmental performance of agriculture. Some countries pay farmers who limit the use of environmentally damaging inputs, such as certain fertilisers and pesticides, or those who use organic farming techniques. Others support farmers in planting trees to reduce agricultural runoff and provide habitat for wildlife, in removing marginal land from production, or in creating or restoring wetlands, which reduces soil erosion and creates wildlife habitat. There are also substantial programmes in OECD countries that support the development and production of renewable energy sources. However, all of these subsidies are higher than would otherwise be needed, in so far as they are used to offset the environmental damage caused by other policies that stimulate production, and many are not well targeted to achieve specific environmental outcomes.

Despite some positive developments, much more needs to be done to reform the subsidy systems of OECD countries. Agricultural subsidies remain high, and most are provided in ways that shield producers from world market developments and encourage overproduction of the very commodities that are already selling at low world prices (OECD, 1998). Some of these harm both OECD consumers (who do not benefit from the lower world prices) and taxpayers. Moreover, most support programmes are inefficient, with as much as three-quarters of agricultural support leaking away from the intended recipients (the farmer), largely through extra expenditures on inputs (OECD, 1995). Furthermore, most agricultural support payments go to large, relatively well-off, farmers, rather than the many small and medium-sized producers that may be in greater need of income support.

OECD support to production maintained by trade barriers also harms producers in non-OECD countries by making it difficult for them to break into export markets. For example, OECD country support to agriculture coupled with restrictions on imports is estimated to cause annual welfare losses of USD 19.8 billion for developing countries (equivalent to about 25% of annual official development assistance) (World Bank, 2001). As such, it significantly reduces the ability of developing countries to provide the necessary resources for environmental and social sustainability.

Interest in the use of tradable permits is growing, but practical experience is still limited

The use of tradable permits for reducing air and water pollution and improving the management of natural resources expanded rapidly in the US during the 1990s, but much less so in other OECD countries. Recently, however, other OECD countries have introduced tradable permits systems and still more have started preparing them. A couple of OECD countries now use tradable permits to control emissions of SO_x, NO_x, and volatile organic compounds (VOCs); lower discharges of water pollutants; reduce over-fishing; and improve management of land and water resources (OECD, 2001*m*). By 2000, several OECD countries, the European Union, and countries in the Baltic Sea Region had either adopted or were preparing schemes to trade rights to greenhouse gases emissions. However, some countries have indicated that they will not put their systems into effect until the Kyoto Protocol or similar agreements on a regional basis are brought into force (IEA, 2001). The European Commission has presented a proposal for a Directive on trading.

Tradable permit systems work by setting a limit on aggregate access to a resource (*e.g.* the amount of emissions allowed in a control region, or total catch permitted from a fishery), and then allocating rights to the resource to individual users, who can use them or transfer them to others. As with other market-based instruments, tradable permits have the potential of achieving specific environmental objectives at lowest cost, by giving polluters or users of natural resources the incentive and flexibility to implement least cost solutions. A number of challenges exist in the design and use of tradable permits,

including agreeing to the initial allocation of the permits and their initial price (if sold or auctioned), establishing mechanisms for trading, monitoring compliance, and accommodating temporary spikes in permit demand.

The available evidence shows that tradable permit systems have been highly successful in reducing emissions of air pollutants cost-effectively. For example, evaluations of the sulphur dioxide emissions trading program implemented in the US in 1995 found that, not only were targets achieved on time and without extensive litigation, but they were met at much lower cost than would have been under the command and control alternatives (OECD, 2001*m*). In the US, the use of tradable permit schemes also led to rapid reductions in emissions of ozone-depleting substances and in use of leaded gasoline. Tradable permit schemes have been somewhat less successful in reducing water pollution, possibly due to the specific characteristics of these resources. Researchers in the OECD and elsewhere are working to understand why tradable permits work better in some circumstances rather than in others, and use the lessons learned to improve the design of future programs. The OECD has already developed Strategic Guidelines to guide policy makers in the design and implementation of tradable permit schemes.

Voluntary approaches expanded rapidly during the 1990s

Voluntary approaches play an increasingly important role in OECD countries as instruments to achieve environmental and social objectives. In recent years, over 300 negotiated agreements have been identified in the European Union, over 30 000 local pollution control agreements in Japan, and over 40 voluntary programmes managed by the federal government in the US (OECD, 1999*d*). In contrast to regulatory and even market-based approaches, voluntary approaches tend to be popular with those directly affected by these instruments, and thus can be used to address concerns in areas where other instruments face strong political opposition.

Voluntary approaches cover a broad range of activities involving both producers and consumers. Producers may negotiate standards of behaviour with public authorities, other firms in the same line of business, or private groups, and then allow third parties to monitor compliance. Under such agreements, firms commit to a level of environmental performance or social responsibility beyond legal requirements. The benefits of voluntary approaches for individual companies and for society may be significant. Firms may enjoy lower legal costs, can enhance their reputation, and may smooth their relationships with society and shareholders (OECD, 2001*n*). Societies gain to the extent that firms translate goals into concrete business practices and persuade other firms to follow their example.

To ensure that voluntary approaches achieve their objectives, governments often make clear that they will introduce regulations or market-based instruments if firms do not comply with their commitments. So far, the evidence suggests that voluntary measures play a positive but limited role in policy mixes for achieving sustainable development. Care has to be taken when designing voluntary agreements to ensure that they lead to additional actions compared with what would have occurred without their use, that transaction and monitoring costs are minimised, and that they are the most cost-effective instrument to address the specific problems targeted.

Although they are voluntary, businesses that are party to such agreements may come under strong pressure to adhere to them. The revised OECD Guidelines for Multinational Enterprises adopted in 2000, provide a good example of this type of voluntary initiative (Box 3.3). Through international direct investment, multinational enterprises can bring substantial benefits to home and host countries by contributing to the efficient utilisation of capital, technology and human resources and can thus fulfil an important role in the promotion of economic and social welfare. But concerns exist that multinational enterprises may take advantage of less strict regulatory conditions in host countries to reduce their environmental and social performance. The OECD Guidelines for Multinational Enterprises provide a process by which business, governments, and stakeholders can engage in a dialogue on appropriate standards of responsible behaviour and on the means by which to achieve compliance.

Box 3.3. OECD Guidelines for Multinational Enterprises aim to maximise benefits of foreign direct investment

Through international direct investment, multinational enterprises can bring substantial benefits to both home and host countries. The common aim of Member countries is to encourage the positive contributions which multinational enterprises can make to economic and social progress and to minimise and resolve the difficulties to which their various operations may give rise.

The OECD Guidelines are recommendations to multinational enterprises, operating in or from the adhering countries, on appropriate conduct in such areas as labour standards, environment, human rights, consumer protection, and the fight against corruption. The Guidelines also include recommendations on corporate disclosure and transparency to reflect the OECD *Principles on Corporate Governance* and to encourage social and environmental accountability. All OECD countries and six non-OECD countries (Argentina, Brazil, Chile, Estonia, Lithuania, and Slovenia) have approved the recommendations, which are part of a larger package of investment instruments (the OECD Declaration on International Investment and Multinational Enterprises).

Although the Guidelines are not binding on multinational enterprises, governments are committed to promoting their observance. To do so, each government has established a national contact point responsible for promoting use of the Guidelines and for considering concerns about the conduct of multinational enterprises in relation to the Guidelines. The national contact points submit a report each year to the OECD Committee on International Investment and Multinational Enterprises, which is responsible for clarifying the meaning of the Guidelines and overseeing their effectiveness.

Source: OECD (2000d).

In addition to negotiated agreements, businesses may also unilaterally adopt codes of conduct applicable to their worldwide operations, often in response to consumer concerns. During the 1990s, many firms based in OECD countries pursued policies to promote social development and improve the environmental management in their operations. For example, several restaurant chains now purchase coffee solely from co-operatives of small producers, and most chemical manufacturers have voluntarily committed to meet specified standards for performance in health, safety, and environmental protection through the Responsible Care programme (OECD, 1999d).

Voluntary approaches in OECD countries also target consumers, tapping into their concerns about health, working conditions, and environmental quality. Initiatives such as labelling schemes or public information campaigns, which provide consumers with information on the origins or characteristics of products can increase consumer awareness of the environmental, social and health impacts of their consumption decisions. OECD governments have recognised that they have a special responsibility to lead the way in changing consumption patterns, for example through the development of green public procurement practices and through the consideration of environmental impacts of infrastructure development.⁸

Providing information on efficient use of vehicles or appliances, on options for waste disposal, and on many other topics can encourage consumers to change their behaviour and act in ways that lead to more sustainable consumption patterns (see Box 3.4). Energy labels are one example. During the 1990s, most OECD countries passed legislation requiring appliance manufacturers to post energy labels on their products, giving consumers information on the energy efficiency and operating costs of alternative products, which they can use to make informed choices. Energy labels have also encouraged manufacturers to improve the design of their products.

Other eco-labels identify food and other products that have been produced in a way that protects the environment or promotes the humane treatment of animals, attracting consumers who value these attributes. To be effective, the information provided should be relevant, science-based, concise,

Box 3.4. **Achieving sustainable consumption**

Many of the consumption patterns prevailing in OECD countries are or will be unsustainable over the long-run, in terms of the demands they make on natural resources and the pollution and waste they generate. Energy, transport, and waste are areas of particular concern. Policies are needed to shift the structure of consumption and production – not necessarily reducing total consumption – so as to reduce environmental impacts and to ensure more equitable access to the resources available.

The policies available to encourage sustainable consumption include economic instruments (such as taxes and charges to internalise the external social and environmental costs of goods, and encourage development of new environmentally beneficial technologies), regulatory limitations or standards (for example, building insulation standards, product standards), social instruments and voluntary approaches (such as information campaigns, eco-labelling schemes). In general, OECD work indicates that such policies should:

- Differentiate between the types of consumption, rather than applying to aggregate consumption.
- Change both the products and infrastructure, and the attitude of consumers.
- Be part of an integrated package of measures.
- Where possible, interventions should be targeted upstreams in the production process – on producers, suppliers, or at the raw material extraction level.

Source: OECD (2002d).

understandable and credible. Governments, industry groups, and non-governmental organisations in several OECD countries are now setting standards for the production, handling, and processing of various products (*e.g.* organic agricultural produce), so that labels provide consumers with consistent information about the environmental, social, or health impacts of these products. Care must be taken to ensure that such schemes are voluntary and promote innovation. They should not present trade barriers, in particular to small producers or to imports from producers in developing countries. In some cases, advice and technical assistance may be needed to help small producers and developing country exporters to meet national standards in the country of consumption.

Strengthening the process of decision making for sustainable development

A weakness in the governance frameworks of OECD countries is the inability to bring coherence across a range of policy areas, a necessary condition for achieving sustainable development. In addition to the sound governance frameworks mentioned in Chapter 2, achieving sustainable development also requires specific approaches to decision making that improve coherence across a range of policy areas, approaches that better integrate economic, social, and environmental concerns in policies, and take account of longer-term concerns (OECD, 2002e).

Coherence and integration of policies is improving

Systems of governance in OECD countries are often not adapted to ensuring coherence across policy areas or to taking a longer-term perspective of the consequences of policy decisions. This is because policies intended to meet economic, social, and environmental goals are made by different ministries or agencies, often with little attention to policies being developed by other entities. Thus policies pursued to achieve one objective may sometimes conflict with those adopted to meet another. For example, policies which support or protect agricultural production in OECD countries may conflict with the goal to reduce surface water and groundwater pollution from the run-off of agricultural chemicals. In addition, the pace of electoral cycles and difficulties in evaluating long-term trends have, in some cases, made it difficult for governments to take a longer-term view in making decisions.

Although experience is still limited, some OECD countries have taken steps in the past decade to better integrate the various dimensions of sustainable development in policies and to balance the needs of people living today with those of future generations. For example, some OECD countries have established inter-ministerial bodies focusing on sustainable development, including the Presidential Commission on Sustainable Development created in Korea, the Australian Sub-Committee of Cabinet on Environmental Sustainability, and the German National Council for Sustainable Development. While the exact functions of these bodies vary, all are charged with raising awareness of sustainable development among the general public and government officials, reviewing progress towards achieving sustainable development, and building consensus on actions needed for further progress. While these bodies are new, they offer the promise of improving the coherence of policy making.

In addition to integrating policies across sectors, OECD governments are working to strengthen coherence of policies across different levels of government (see, for example, Box 3.5) (OECD, 2001*o*). Sub-national governments often bear primary responsibility for implementing policies developed at the national level, including policies concerning education and health services, economic development, waste management and water supply. To do so effectively, they need to be able to influence policy design at the national level, and participate in decisions on how they should be implemented, including how the costs of implementation are shared. Strengthening the coherence of international governance for sustainable development, including ensuring that trade and investment liberalisation are mutually enforcing of widely-shared environmental and social objectives, is also essential (see also Chapter 4).

With levels of urbanisation in OECD countries approaching 80%, the capacity of city governments to integrate policies in support of sustainable development also needs to be strengthened. OECD experience with the reform of metropolitan governance systems shows that urban government structures presently in place are often outdated and not well adapted to solving such problems as sprawl, safety, congestion, regeneration of older areas, and environmental degradation, which affect the quality of life and economic opportunities of the entire region of which it is a part (OECD, 2001*o*). Ensuring coherence

Box 3.5. **Holistic institutional approaches to sustainable development: the UK experience**

A number of tangible steps have been taken in the UK to develop the institutional framework for sustainable development and the roles of different actors in it, including:

- *Central government*: the 1999 strategy for sustainable development for the UK, highlighted the importance of challenging traditional “silo” policy and decision-making processes. The concept of “joined-up” thinking has been fostered, though it has been difficult to achieve. A Parliamentary scrutiny committee, the Environmental Audit Committee, has been established; the remits of the Cabinet Committee and the interdepartmental committee of “Green” Ministers have been strengthened; and the multi-sectoral advisory body, the Sustainable Development Commission, established. They seek to place sustainable development closer to the heart of government policy-making, and to decision-making in other sectors.
- *Regional government*: following devolution, good progress has been made in Wales, Scotland and Northern Ireland. In England, all regions now have regional sustainable development frameworks in place. These have been agreed by a partnership of regional bodies including Government Offices, Regional Development Agencies, local government and the business and voluntary sector. They will provide a strategic focus for the region, and form a link between national and local policy.
- *Local government*: has new responsibilities and opportunities through initiatives such as New Deal for Communities (tackling social exclusion), Best Value (improving local authority services) and community strategies prepared by Local Strategic Partnerships which involve local people in setting priorities (building on Local Agenda 21).

Source: OECD (2002*e*).

between local policy objectives and resources and those at the regional or national level is not easy. The challenge is to create systems of governance that facilitate planning across jurisdictions.

Progress towards sustainable development needs monitoring

Monitoring and the reporting of performance are important steps in any internal management system. Monitoring provides valuable feedback on progress towards goals, and facilitates policy adjustments needed to ensure that implementation remains on target. Monitoring is also an important aspect of accountability. In turn, accountability relies on good information and analysis, and a willingness to alter priorities in the face of changed circumstances. Transparency in reporting the results of that monitoring is therefore important, as are incentives to encourage participants to improve their performance. Such incentives also help to convince third parties of the credibility of the system in place. Inadequacies at any one of these levels raises public concerns about the effectiveness of government policies.

A few OECD countries have established new autonomous institutions to monitor and report on progress towards achieving sustainable development goals, including the UK and Canada (Box 3.6). The OECD also supports its member countries in monitoring national progress towards sustainable development goals, for example through regular reviews of country's environmental performance, energy policies, and economic policies (see also Annex I).

Box 3.6. National institutions to monitor progress towards sustainable development: the Canadian experience

Countries are increasingly recognising the necessity of bringing together information on economics, social, and environmental trends for a complete understanding of progress towards sustainable development. Independent scrutiny of the results plays an important role in identifying the gap between goals and actions, in raising awareness, and in developing recommendations to governments for future action. In this spirit, Canada established the position of Commissioner of the Environment and Sustainable Development. The Commissioner is independent of the government and is responsible for holding the government accountable for greening its policies, operations, and programmes. In particular, the Commissioner reviews departmental strategies for sustainable development, monitors and reports on progress of the government in implementing sustainable development strategies, and undertakes studies on the cutting edge of environmental and sustainable development issues. The Commissioner presents an annual report to Parliament, which is available on the Internet.

Source: OECD (2001)

Monitoring progress towards sustainable development and informing the public and other stakeholders about results, also requires appropriate indicators. A number of OECD countries have developed indicators of sustainable development during the 1990s, and are using them in planning, programming, specifying policy objectives and priorities, budgeting, assessing performance, and communicating with the public. The OECD is now working to reach consensus with countries on indicators it can use to report on country progress towards sustainable development, and is developing a framework for the use of these indicators in the peer review processes of the Organisation.

Long-term approaches to decision-making are necessary for sustainable development

While during the 1990s a number of OECD countries began the process of creating institutions that foster integration, and to reform working practices within government to overcome the problem posed by traditional segmentation, less has been done to increase capacity to systematically consider the consequences of current actions on future generations. There is a strong need in most OECD countries

to improve their analytical capacity for long-term integrated analyses, through which the interlinkages between environmental, social, and economic development could be thoroughly assessed.

The institutional structures in most countries are such that the long-term impacts, common in many areas of sustainable development, are not adequately considered in decision-making. The pace of electoral cycles, the short-term nature of most economic agendas, and the difficulties inherent in evaluating long-term trends all pose challenges. In some cases – such as assuring the economic security of elderly people and mitigating climate change – the result has often been an inability to incorporate a longer-term view in current policy decisions. In general, there is a failure to consider sufficiently uncertainties regarding the long-term repercussions of current actions. Furthermore, taking a longer-term view in government policies is often hampered because the normal preference – of both individuals and the governments that represent them – is biased in favour of current priorities over future needs.

A few OECD countries have begun to research the long-term impact of policy decisions on sustainable development, but efforts have been limited so far. Positive examples include research on the longer-term integrated environmental and economic impacts of sectors such as agriculture, with a view towards generating policy-relevant information and strengthening the links between policy-makers and scientists.

Fostering sustainable development through science and technology

New scientific knowledge and technology are among the important legacies people can leave to future generations to ensure the sustainability of development. Scientific advances and technological change are also the main drivers of economic growth, wealth creation and social well-being (OECD, 2001*p*). New scientific and technological advances have led to dramatic increases in life expectancy in both OECD and developing countries, contributed to our understanding of how the earth's life support systems function, and helped to focus attention on emerging problems requiring immediate attention, such as global climate change.

New technologies are making it possible to economically recover more ore from mining waste, purify wastewater to a higher standard, and reduce pollution from burning fossil fuels. Science and technology can help address other key environmental issues through cleaner production, bioremediation, and feral pest and weed control. Specific new technologies have the potential to improve sustainability and performance, including in the areas of biotechnology, alternative energy production technologies, bio-monitoring, and diagnostics.

Developing and disseminating new knowledge and technologies – within the OECD area and beyond – requires policies that protect intellectual property rights and encourage investment in innovation. Priorities include maintaining a stable macroeconomic framework, promoting good governance, and investing in education and infrastructure. By assuring that environmental externalities are reflected in the costs of production and in the prices of goods and services, governments can help stimulate the development and adoption of new, cleaner technologies by the private sector. Also important are policies to encourage partnerships between government, industry and academia, so as to mobilise finances for R&D and ensure that the knowledge generated is widely shared. Special action may be required to ensure that the poor are able to benefit from important developments, such as drugs to treat HIV/AIDS. Finally, openness to trade and foreign direct investment plays a key role in fostering innovation by exposing local firms to a wide range of new ideas and knowledge, and providing them with the incentive to improve their own products.

Government programmes of research, development, and dissemination of new technologies need to be carefully designed so as not to substitute for private efforts, or to support the development of products that may be environmentally or economically inferior to alternatives. But government support to R&D may be needed to correct market failures in scientific and technological development. This includes public funding of basic research as well as developing technologies with large public benefits that risk underinvestment by the private sector. To address sustainable development concerns, technology policy needs to be more closely integrated with environmental policies, and government technology programmes should be oriented more towards environmental and social goals (OECD, 2002*f*). Examples include the

development of medications that prevent and treat HIV/AIDS tuberculosis, and malaria; research that raises the productivity of food crops that are important in less developed countries, such as cassava, sweet potatoes, and manioc; and basic research into new forms of more sustainable energy.

Technological change sometimes results in unintended economic, social, and environmental consequences. Innovations that address one problem (*e.g.* asbestos to prevent fires from spreading) may generate a new one (*e.g.* lung cancer). Governments can improve their risk management capabilities by ensuring that their own experts are up-to-date on new scientific and technological developments. They can regularly communicate with experts from diverse fields on potential technological benefits and risks, and maintain greater openness to societal concerns about new technologies. To prevent potential conflicts of interest, government agencies responsible for protecting the public interest on health, safety, and environmental matters need to be capable of assessing and (when necessary) regulating technologies independently from the groups or agencies promoting their adoption.

Overcoming obstacles to policy reform

There is considerable scope for continued economic, social, and environmental gains from better policies and technologies in OECD countries. However, significant barriers exist to the adoption or full implementation of many of these options, in particular political obstacles and knowledge and information gaps. The OECD is now conducting work to better understand how countries can overcome obstacles to the implementation of appropriate sustainable development policies, as requested by Ministers in 2001. Some of the preliminary lessons from this work and previous OECD analysis are presented here.

Political obstacles can be overcome

Firms and individuals that benefit from existing policies often resist reforms, even when the reforms generate net benefits for society as a whole. Because the benefits of policy reforms are often more widely spread than the losses – generally accruing to consumers or taxpayers overall, rather than a specific sector of income group within society – those who would lose from the reform have greater reason to object to it than those who would benefit. As a result, the losers tend to have disproportionate political influence. Even those who stand to gain from reforms often resist reforms and support policies that grant special privileges to certain groups, such as farmers, fishers, or coal miners. Many members of the broad public support the objectives that are commonly cited to justify these programmes, including: stimulation of regional or rural economic development; increasing access by the poor to basic commodities; maintaining the competitiveness of, and employment in, specific firms or industries; reducing dependence on imports of critical commodities; and protecting the environment.

From the government perspective, decisions to work towards policy reforms should be based on an assessment of the full costs and benefits of the existing policy, and of the alternative policies available for achieving the same objectives at less cost to society. They must aim to implement a co-ordinated approach to economic, environmental, and social policy, if the social and environmental aspects are to be addressed effectively in the context of national policies. Recognising that many existing policies are ineffective, costly and potentially environmentally damaging, OECD countries have started processes to reduce their harmful subsidies, introduce environmentally related taxes, and adopt other measures to improve their economic and environmental performance. However, as shown at pages 49-50, progress in the implementation of these policy reforms has been slow because of the significant obstacles.

Priority areas for subsidy reform are:

- phasing-out environmentally-harmful subsidies and making remaining ones conditional on the achievement of specific environmental aims;
- reducing discrepancies in domestic support that are not justified by the public goods that different sectors may provide;
- better identifying and quantifying different types of subsidies and their effects;
- helping those adversely affected by reform through transitional measures to smooth their employment adjustment and to upgrade their skills and employability; and

- encouraging the creation of efficient markets to provide environmental services.

OECD country experiences have indicated a few of strategies that can help to overcome these political barriers, in particular gaining the co-operation of the people and communities that lose the most from the reforms, overcoming concerns about loss of competitiveness, and gaining the support of the broad public.

Gaining the co-operation of the people and communities that lose the most from the reforms. Reforming policies often requires the co-operation of the people and communities who will lose the most from the implementation of new policies. Consulting extensively with these people and communities and involving them in developing programs to help them through the transition can be critical in reducing political opposition to reform. For employees of shrinking firms, transitional packages may include job training and job placement services. For farmers used to paying little or nothing for irrigation water, the package may include the allocation of tradable rights to water. For the poorest and most vulnerable, assistance may involve provision of direct income support or income tax credits. For communities, the packages may involve financial support to attract new firms or to develop alternative sources of employment. Territorial development approaches can help communities to adjust to reductions in subsidies by identifying and exploiting untapped local assets for development. Consultation need not necessarily result in transitional measures. Simply communicating the objectives and expected benefits of reforms can help reduce opposition to change. People may accept an outcome that seems to threaten their personal interests or treat them unfairly, if they consider it to be equitable and developed through due process as part of a larger social compact. Pre-announcing the reforms, and phasing them in over an agreed timetable, can provide time for people and communities to adjust to the changes, and increase support for the reforms.

Overcoming concerns about loss of international competitiveness. This has proven particularly difficult for OECD countries, and explains why some continue to provide subsidies to coal producers and exemptions from energy taxes to large energy users. One way of addressing this concern is for all major trading partners to introduce policy changes simultaneously. Organisations such as the OECD play an important role here. For example, the OECD is helping countries co-ordinate reductions in agricultural subsidies by monitoring and reporting on policy developments and by providing a forum where agricultural ministers can periodically discuss the issue. OECD Tax and Environment Experts have agreed to look into developing a framework to tackle the competitiveness concerns relating to environment taxes. By highlighting the issue of tax exemptions and subsidies in its economic and environmental performance reviews, the OECD helps governments build defences against strong domestic lobbies. The International Energy Agency plays a similar role in helping its members co-ordinate their energy policies.

Gaining the support of the broad public. It is the general public who are the potential winners from the reforms, as they pay for the benefits granted to a few. Often they do not know how much the subsidies, tax breaks, or other measures cost society, or who benefits from them. Monitoring the costs and benefits of special privileges and publicising the information can increase public support for reforms. For example, increasing public awareness that agricultural subsidies are often inefficient in supporting the targeted farmers has helped increase support in some countries to reform these subsidies. Bringing other stakeholders and the concerned public into the consultation process can help to increase public awareness, as can targeted campaigns by non-government organisations.

Perhaps the most important lesson from OECD country experience is that strong and often co-ordinated political action is needed to reform subsidies, tax breaks, or other special privileges. Privileges are much harder to remove than they are to establish, so where possible countries should avoid granting such support in the first place. Experience shows that, to the extent they do grant privileges, governments should target them to a clearly defined group and offer them for a limited time only. The slow progress OECD countries have made during the past decade in reforming their subsidy and tax systems shows that much is still to be learned about how to overcome barriers to reforms. As part of the OECD work on sustainable development, a new program of research will look into strategies for overcoming the barriers to reforming environmentally damaging subsidies.

Knowledge and information gaps need to be filled

Not much is known about the sustainability of and linkages between economic, social, and environmental systems. Indicators of performance along the three dimensions of sustainable development are essential for monitoring progress and the success of policies to enhance sustainable development. But existing indicators are often unsatisfactory, or the underlying data is missing or incomplete. Despite ever increasing information and knowledge, science cannot answer many important questions about the type and nature of hazards that we face. Nor can experts accurately predict the economic and social impacts of adopting certain policies. This uncertainty about the future is one reason people resist policy reforms or the introduction of new technologies. For example, uncertainty about the pace and extent of global warming and about the cost and impact of proposed policies to prevent climate change has made forging an international climate change agreement difficult.

While uncertainty can never be eliminated, policy makers in OECD countries are increasingly relying on tools such as sustainable development impact assessment, regulatory impact analysis, or integrated appraisal, risk assessment, and risk analysis to help improve the quality of political and administrative decisions. Regulatory impact analysis or integrated appraisal systematically assesses the potential benefits and costs arising from government action. Risk assessment and risk analysis – used as input to regulatory impact analysis – can indicate the benefits (such as reduced adverse health or other effects) expected from the adoption of a new regulatory measure and help identify the most important hazards. Decision-makers and the public can use the results of the analyses to compare management options, enabling them to make better-informed decisions about risk management. Use of these tools also helps make decisions more transparent by making clear the assumptions on which they are based.

Experience in OECD countries shows that tools such as regulatory impact assessment – when properly designed and used – can help improve the efficiency, effectiveness, and transparency of government decisions (OECD, 1997). Their results cannot, however, provide a sufficient basis for decisions on their own. A full analysis of the consequences of available options can inform decision-making but – where this shows competing interests or objectives – it can also provide a basis for re-assessing priorities so as to avoid or mitigate negative impacts. In addition, not only are experts unable to settle questions of science, but they cannot answer questions about how much risk the public is willing to tolerate. OECD countries have acknowledged that precaution has a role in designing policies for environmental sustainability (OECD, 2001*q*). Decisions should be made through a process of open debate during which the public, informed to the greatest extent possible by the available scientific evidence, can express its values and preferences.

4

STRENGTHENING PARTNERSHIPS FOR SUSTAINABLE DEVELOPMENT IN AN INTERDEPENDENT WORLD

Sustainable development is a shared goal of developing and developed countries

Expanded flows of goods, services, capital, technology, ideas and people around the world – globalisation – offer the prospect of stimulating economic growth and productivity, with resultant improvements in living standards. These processes can also increase global resource efficiencies (including environmental resources), as national economies make the most of their respective comparative advantages, and to exploit available economies of scale. Globalisation involves the potential for costs as well as benefits. The benefits of globalisation are most likely to exceed the costs if market forces are free to generate the economic growth and poverty reduction that underlie sustainable development. The net benefits will also be higher if environmental and social policies are appropriate, implying a need for strong policy co-ordination, within governments and between governments and private actors.

Developed and developing countries have important roles to play in achieving this result, both individually and collectively. For example, OECD and non-OECD countries have long been working together on the sustainable development agenda, via the many multilateral or regional agreements in which both participate. On the economic side, the various agreements administered by the World Trade Organisation provide one example; the myriad of bilateral investment treaties that aim to make foreign investment more readily accessible provide another. On the environment side, developing and developed countries both contribute to the implementation of agreements dealing with climate change, ozone depletion, biodiversity loss, desertification, dispersion of persistent organic pollutants, over-fishing, and so on. The Global Environmental Facility also provides grants and concessional loans to assist developing countries in addressing certain transboundary environmental problems (climate change, biodiversity, ozone depletion, and the management of international waters). In terms of social accords, one prominent example is the Declaration on Fundamental Principles and Rights at Work, administered by the International Labour Organisation. Another recent example is the Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria, created in 2001 by an alliance of private donors, non-governmental organisations, foundations, national governments, and intergovernmental organisations.

Considerable attention has been directed in recent years to ways of making implementation of these various agreements more consistent with each other. For example, concerns are sometimes raised about the environmental impacts associated with trade liberalisation agreements, or the trade implications of multilateral environmental accords. Similarly, the inter-linkages between trade, competitiveness, economic growth and core labour standards have been a concern. The OECD has been examining these and other related questions for several years.

Working together toward poverty reduction objectives is perhaps the most important area in which developed and developing countries need to co-operate towards sustainable development. Sustainable development cannot be achieved without creating a better future for the world's poor. Despite progress in reducing poverty in some regions, one in five people worldwide still live on less than USD 1 per day (World Bank, 2000*b*). In Africa, this figure is one in two people. Reducing poverty is a complex matter. It requires economic growth, but growth is not enough. Other key contributions come from investments in education, health care, social safety nets, and sound environmental management – all crucial for sustainable development. It is especially vital to create the institutions of governance that foster economic growth, social stability, and that maintain vital eco-systems. Among other things, this involves reducing the vulnerability of the poor and providing them with an effective voice in the process of change (OECD, 2001*r*; OECD, 2001*s*).

Countries agreed to many economic and social goals at various international meetings and summits during the 1990s. A number of key goals for poverty reduction and sustainable development were assembled and updated in the United Nations Millennium Declaration of September 2000. These, and their related targets and indicators, are known as the Millennium Development Goals (see Annex II). These contain ambitious targets, and represent a formidable challenge. The goals are:

- 1) Eradicate extreme poverty and hunger.
- 2) Achieve universal primary education.
- 3) Promote gender equality and empower women.
- 4) Reduce child mortality.
- 5) Improve maternal health.
- 6) Combat HIV/AIDS, tuberculosis, malaria and other diseases.
- 7) Ensure environmental sustainability.
- 8) Develop a Global Partnership for Development.

The PARIS21 Consortium – a partnership of policy-makers and statisticians from both OECD and non-OECD countries – works to strengthen the capacity of developing countries (especially the poorest) and to monitor achievement of the Millennium Development Goals through the use of poverty reduction and development indicators. This consortium is supported by the OECD, the World Bank, the International Monetary Fund, the United Nations, and bilateral donors.

Critical to the achievement of the Millennium Development Goals will be the ability of countries to adapt principles and policies agreed at the regional or global level to national or sectoral circumstances. For developing countries, this implies a strong focus on approaches that contribute to several objectives at the same time. An example is efforts to clarify (and give legal recognition to) traditional communal rights to forest and land resources, as a way of encouraging sustainable use of these resources, while protecting the rights of the poorest citizens who often depend on these resources for their livelihood. Efforts to reduce poverty and to achieve other local environmental goals that would also contribute to the adaptation to global climate change provide another example (Box 4.1).

Market access is improving, but major barriers remain

World trade and investment flows involving developing countries have significantly increased in recent years (see Chapter 2). During the 1990s, private long-term capital flows from Development Assistance Committee (DAC) countries to developing countries also increased substantially, relative to official development assistance (ODA).

International trade and investment promote economic growth, employment, and development –critical for reducing poverty and generating the wherewithal to invest in social development and environmental protection. Developing countries that have succeeded in participating fully in the world trading system have generally grown faster and reduced poverty more successfully than those that have remained more isolated (OECD, 2001*t*). During the 1990s, developing countries that were more open to

Box 4.1. Climate change and development policies: exploring the synergies

Although climate change does not yet feature prominently on the policy agendas of many developing countries, several factors are starting to change this situation. Developing countries are likely to be the most vulnerable to the long-term impacts of climate change (*e.g.* infectious diseases, sea level rise, or extreme weather events). Through its effects on such critical resources as water and biodiversity, climate change will increasingly affect the very resources on which economic development in many developing countries depend. In Africa, Latin America, and Asia, for example, some analysts suggest significant decreases in agricultural productivity related to climate change for the next century, and a corresponding increase in the numbers of people at risk of hunger (IPCC, 2001*b*).

Climate change considerations therefore provide both developing and developed countries with an opportunity to look at their respective development strategies from a new perspective. Fulfilling development goals (including poverty reduction) through policy reforms in such areas as energy efficiency, renewable energy, sustainable land use or agriculture, will often also generate benefits related to climate change objectives. Additional local benefits related to technology and other resource transfers aimed at climate policy objectives may also be generated. Poverty Reduction Strategies therefore provide unique opportunities to integrate climate initiatives and other issues related to environmental sustainability into poverty reduction efforts.

The OECD believes that exploring these “win-win” opportunities could prove beneficial for both developing and developed countries over the long-term. It is working to identify the principal linkages between climate change and poverty reduction, focusing especially on the challenges posed by climate-related natural resource management and human health problems (*e.g.* spread of disease). It is investigating opportunities to combine poverty reduction strategies with cost-effective climate change adaptation and mitigation policies at the local, national and international levels. One of the objectives is to map out the main areas where development policy choices play an important role in widening or narrowing the scope for climate-friendly development options.

trade and FDI achieved per capita economic growth rates of 5% a year (World Bank, 2002). In contrast, over the same period, per capita incomes in other developing countries fell by 1% per year.

Although many of the poorest developing countries have benefited little from this globalisation, as FDI flows have targeted only a limited number of recipient countries (see pages 19-20), those which benefited most tended to have stronger governance institutions, more open economic policies, as well as better access to OECD markets. OECD countries recognise the need to work closely with developing countries to improve conditions in each of these areas.

Important steps in this direction were the agreements that emerged from the Uruguay Round multilateral trade negotiations. The most important aspects of these agreements for developing countries were the binding commitments contained in the “Single Undertaking”, whereby virtually every item of the negotiation is considered as part of a whole and indivisible package and cannot be agreed upon separately. The Uruguay Round Agreements also brought under the rules of the WTO a number of products in which developing countries have a comparative advantage.

For example, the Uruguay Round brought textiles and clothing products under multilateral rules by abolishing the Multi Fibre Agreement – a system of import quotas that had previously been negotiated bilaterally between some OECD and supplier countries. However, the new arrangement has a relatively long phase-in period, and some developed countries have exercised their rights to postpone liberalisation of the most sensitive items (“back-loading”) until the end of the implementation period in 2005. As a result, many of the benefits from freer trade in this sector for the developing countries have yet to materialise fully.

Another area of particular interest for developing countries is agriculture, where all but the least developed member countries of the WTO bound their tariffs on most products. The Agreement on Agriculture also established commitments to reduce export subsidies, improve market access, and

reduce trade-distorting domestic support. While these commitments represented important steps towards reforming agricultural trade and opening markets, levels of support and protection remain particularly high in this sector. Deeper cuts in tariffs (or increases in the volumes admitted at lower tariffs) and efforts to address non-tariff barriers will be needed to significantly improve the market access of developing countries.

The Doha Development Agenda calls for additional reductions in trade barriers, in the use of export subsidies, and in trade-distorting domestic support to agriculture. The long-term objective is for substantial reductions in market barriers and domestic support and the elimination of export subsidies. Such cuts would benefit those countries that can compete on quality and price, rather than on the size of their subsidies. Many of these countries will be the developing countries, which often have a comparative advantage in producing the goods developed countries protect the most. Indeed, the World Bank estimates, that if developed countries provided unrestricted access to their markets and abolished their export subsidies, developing countries could boost their income by USD 43 billion a year (World Bank, 2002). Clearly, increased access by developing countries' goods to OECD markets would provide significant potential for economic growth and development.

The Doha Development Agenda also affirms that Trade Related Intellectual Property Rights (TRIPS) can and should be used to support countries' public health objectives, especially access to medicines and related research and development. The TRIPS Agreement also requires developed countries to assist developing countries to facilitate implementation of the agreement, and to encourage their firms and institutions to transfer technology to the least-developed countries.

In the Brussels declaration of the Third UN Conference on the Least Developed Countries (May 2001), participating governments made clear their aim to improve preferential market access for least developed countries (LDCs) by working towards the objective of duty-free and quota-free market access for all LDC products in the markets of industrialised countries. Individual OECD countries and regions have also taken unilateral steps to expand duty-free and quota-free access to their markets for goods of the world's poorest countries. For example, in April 2000, Canada, the EU, Japan, and the US announced their intention to provide duty-free market access for nearly all products from LDCs. Other important recent initiatives include the United States Africa Growth and Opportunity Act, the European Union's Everything but Arms Initiative, and the modification of the Generalised System of Preferences (GSP) in the EU and Japan. Further market access measures will be discussed as part of the Doha Development Agenda, and monitored as part of Goal 8 of the Millennium Development Goals.

During the 1990s, more firms than ever before, and in more industries and countries, expanded abroad through direct investment. More than one-half of foreign affiliates are now located in developing countries. The growth in international investment is linked to government action to reduce barriers to investment, to lessen discriminatory subsidies, to reform regulatory systems, and to privatise firms in key sectors, such as electricity, gas, water, and telecommunications. Of the almost 1 000 changes in FDI regulations undertaken worldwide in the 1990s, 94% were aimed at creating a more favourable environment for FDI (OECD, 2001*u*). Instead of barriers, many countries now use incentives to attract FDI, including tax holidays, preferential access to (government) credit, subsidies, and the reduction of import duties.

Although there are no comprehensive multilateral rules governing international investment in all sectors, OECD countries and a number of non-OECD countries are committed to providing non-discriminatory treatment to inward direct investment and related financial flows, via OECD codes of liberalisation. The 36 countries that adhere to the OECD Declaration on International Investment and Multinational Enterprises have also made a political commitment to provide national treatment to established foreign direct investors; to promote voluntary standards of corporate responsibility by multinational enterprises; to encourage moderation and restraint in the use of investment incentives; and to avoid imposing conflicting regulatory requirements on multinational enterprises. The OECD Guidelines for Multinational Enterprises contain recommendations from 33 adhering governments to multinational enterprises covering the respect of human rights, labour and consumer rights, and environmental protection. In the broader context of development, liberalised trade and investment

policies need to be accompanied by a range of other policies, for example in areas such as education, macroeconomic stability, good governance, or environmental practice.

The declaration of the UN International Conference on Financing for Development (Monterrey, Mexico, 18-22 March 2002) offers the promise for collaborative efforts among countries to make globalisation work for sustainable development. Among other things, it recognises that each country has primary responsibility for its own economic and social development, but that domestic policies are also tightly interwoven with the global economic system, including opportunities for trade and investment to contribute to poverty reduction.

The capacity to benefit from globalisation needs to be strengthened

High barriers to trade and investment only partly explain why some countries have not benefited as much as expected from economic liberalisation. Another important reason is that governments and private firms in many developing countries lack the knowledge, technical skills, infrastructure, and financial resources to deal with the complexity of the multilateral trading system and with the many demands of multilateral, regional, and bilateral agreements. To address this weakness, many OECD countries and international organisations have initiated programs to help partner countries build trade capacities, enhance trade performance, and participate effectively in the rule-making and institutional mechanisms that shape the global economy (see Box 4.2).

Similar capacity constraints also exist in the area of investment. Until countries have reached a certain level of development in education and infrastructure, they cannot fully benefit from a foreign presence in their markets. For example, countries cannot benefit from the transfer of technology if they

Box 4.2. Developing capacity for trade

Helping developing country partners create the capacity to meet the requirements of these measures is an area where OECD countries are increasingly focusing their attention. Building this capacity is also high on the Doha Development Agenda.

Trade capacity enhances the ability of partner country policy-makers, enterprises, and civil society actors to:

- Collaborate in formulating and implementing a trade development strategy that is embedded in a broader national development strategy.
- Strengthen trade policy and institutions as a basis for reforming import regimes, increasing the volume and value-added of exports, diversifying export products and markets, and increasing foreign investment.
- Participate in – and benefit from – the institutions, negotiations and processes that shape national trade policy, and the rules and practices of international commerce.

Although it is not possible to recommend a single policy framework that is ideally suited to promoting trade, recent capacity building efforts point to several features that have been shown to lead to positive results:

- A coherent trade strategy that is closely integrated with a country's overall development strategy.
- Effective mechanisms for consultation within and among different stakeholders (government, the enterprise sector, and civil society).
- A strategy for the enhanced collection, dissemination and analysis of trade-related information.
- Trade policy networks, supported by indigenous research institutions, and trade support institutions.
- Outward-oriented regional strategies.

Source: OECD (2001v).

have no engineers or scientists who can adapt foreign technology to their own needs. Countries with imperfect and underdeveloped financial markets also have difficulty reaping the full benefits of FDI.

Greater openness to international capital markets may also make developing economies more vulnerable to external shocks. The decade of the 1990s witnessed a major increase in the level of international capital flows to developing countries. Factors accounting for this included deregulation, regional integration, and advanced information technology. While these changes provided much-needed capital to some developing countries, they have also contributed to increased volatility of financial flows.

Most of the expected environmental and social effects of trade and investment activity are associated with an expansion of economic output, a reallocation of production and consumption, or effects on technological development and diffusion. Increased openness to trade could generate environmental benefits by raising the value of natural resources, reinforcing incentives to manage them on a sustainable basis. On the other hand, when property rights to natural resources are not clearly defined, or when regulations governing them are weak or poorly enforced, the increased demand for natural resources resulting from openness to trade can accelerate unsustainable resource use patterns. A key concern is therefore that the expanded output associated with trade could exacerbate environmental problems.

In some cases, trade and investment liberalisation may also affect environmental and labour standards, by encouraging existing standards to be reduced or poorly enforced (leading to “pollution havens”) or kept low in the first place, in order to keep production prices low (the “regulatory chill” effect). Evidence of such problems has been limited. For example, the evidence suggests that there is a low risk of redeployment of productive resources to countries where environmental standards are low. For most industries, this is because environmental costs are only a very minor component of overall costs. There is also some evidence suggesting that as economic activity expands, both the demand for higher environmental and social quality, and the financial resources to enable investment in these areas increase. Similarly, countries with low core labour standards do not seem to generally enjoy better export performance than countries with high standards (OECD, 2000e).

Ensuring the quality of environmental and social policies, and enhancing the effectiveness of public institutions in enforcing regulations are likely to be the most effective ways of ensuring that trade and investment liberalisation on one side, and environmental and social objectives on the other, are mutually supportive. The Doha Development Agenda of the WTO is a positive step forward in this respect. Negotiations on the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements will be started in this context, as will negotiations on the procedures for regular exchange of information between MEA Secretariats and the relevant WTO committees. Many policies – such as the elimination of subsidies that are both trade-distorting and environmentally-damaging – can lead to “win-win” outcomes when supported by complementary environmental and social policies at the national level.

More systematic assessment of the environmental and social implications of trade and investment liberalisation would allow for more informed decisions by policy-makers, and a better sequencing of the reform process. Several OECD countries are therefore currently undertaking environmental or sustainability reviews of WTO and regional or bilateral trade agreements, in order to identify those trade measures most likely to exacerbate environmental and social pressures, as well as those areas where liberalisation is likely to bring benefits.

Designing environmental and social policies in non-protectionist ways, and ensuring that existing trade and investment regimes do not prevent the non-discriminatory implementation of national regulations, are also essential elements for progress toward this objective. One issue that has emerged during the 1990s is the effect on developing country exports of OECD countries’ environmental regulations and other measures. Such measures cover a broad spectrum of instruments and include technical regulations (such as product-content requirements); sanitary and phytosanitary measures; and mandatory or voluntary labelling, packaging, and recycling requirements. Many developing countries often have real difficulty consistently complying with these measures (OECD, 2001f). Exporters may lack understanding of what is required, technical capacity to undertake required tests, or capital for needed

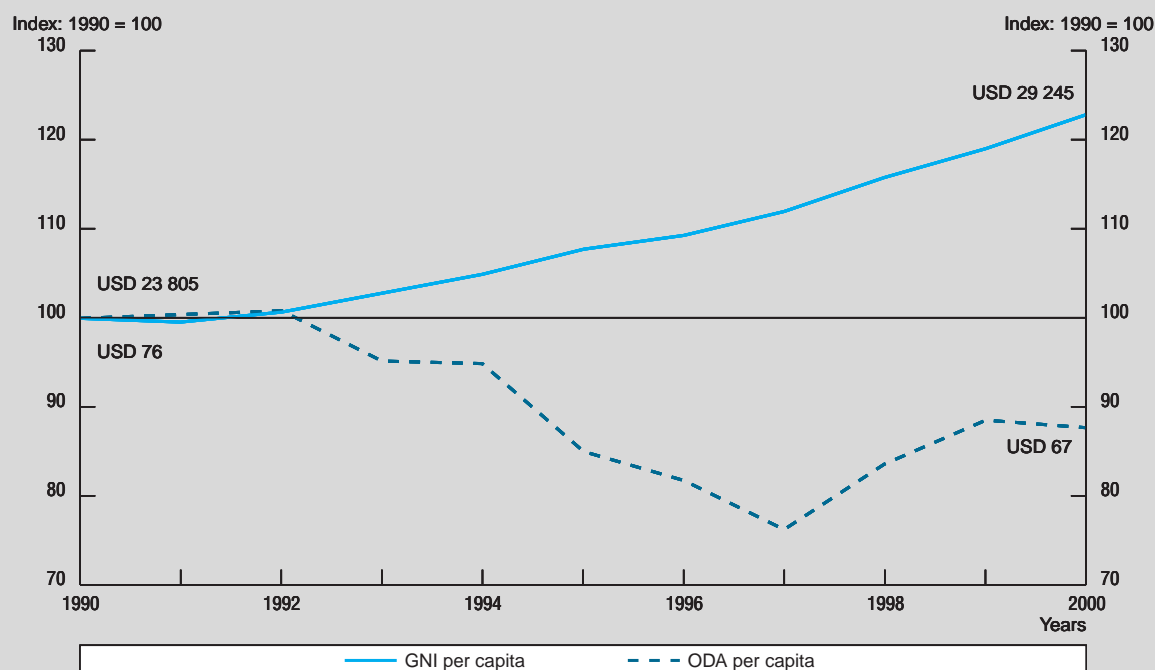
equipment. Governments may not have the monitoring systems, data, or trained agents needed to enforce the measures. Helping developing country partners create the capacity to meet the requirements of these measures is therefore an area where OECD countries could focus their capacity building efforts in the future.

ODA remains very important for global sustainable development

In the fight against poverty, ODA plays a vital role in supplementing and catalysing domestic resources and foreign investment. In recent years, ODA has represented an average of about one-third of total resource flows from industrialised to developing countries. ODA is especially important for the poorest countries that have difficulty attracting international investment. In these countries, ODA can account for up to 25% of gross national income (GNI), and for a much higher proportion of public spending.

OECD countries have steadily decreased their spending on ODA as a percentage of total GNI and per capita over the past decade (Figure 4.1). In 2000, ODA represented only 0.22% of national income compared to 0.33% in 1992 and to the 1970 UN target of 0.7%. In some cases this reflected fiscal problems. There was also a perception that aid has often not been effective in inducing development, despite recent research and evaluation pointing to increasingly positive returns to aid. However, at the UN Conference on Financing for Development (Monterrey, Mexico, March 2002), most major OECD donors indicated an intention to substantially increase aid. In an environment where ODA flows, while rising, will remain highly constrained, it is imperative that available resources be used as efficiently and

Figure 4.1. Indexed OECD country per capita income and per capita ODA outflows



Note: USD at 1999 prices and exchange rates.
Source: OECD, DAC statistics.

effectively as possible to promote growth and reduce poverty. Recent studies show that aid effectiveness depends on various conditions (World Bank, 2002). The most important of these are:

- good governance;
- policy and institutional frameworks that encourage private investment (macroeconomic and political stability, respect for human rights and the rule of law);
- minimum levels of investment in human capital (education, good health, nutrition, social safety nets); and
- policies and institutions for sound environmental management.

There have been significant improvements in making aid more effective. Key among these is strengthening partnerships for development. Partnerships are increasingly based on the principle of helping governments and people of developing countries strengthen their capacities to direct their own development initiatives. It often involves working with non-governmental organisations, business groups, academic institutions, and others, in recognition of the important role these groups play in fostering sustainable development. Broadly, the partnership approach recognises the importance of a dynamic private sector, local ownership, and participation by civil society.

One of the Millennium Development Goals is to integrate the principles of sustainable development into country policies and programmes. The development of sustainable development strategies enable countries to tackle challenges in a coherent and dynamic way. But there can be no “one size fits all” approach. Each country must formulate its own approaches, in line with its social and economic priorities, its cultural values, institutions, political structures and geographical and ecological features. Thus, sustainable development strategies can take a variety of forms. Successful strategies, however, share a number of common principles:

- Country-led and nationally owned.
- Rooted in a vision of long-term development reflecting the country’s history and core values.
- Developed transparently with the broad participation of multiple stakeholders (including representatives of government, business, labour, and civil society).
- Based on realistic and easy to monitor targets linked to budgetary priorities.

Formulating a sustainable development strategy does not necessarily mean establishing new plans or institutions. Established strategic planning processes provide a strong basis for moving towards sustainable development. Poverty reduction strategies (PRS), in particular, provide important opportunities for countries to move towards sustainable development. These strategies are conceived as country-driven instruments, developed transparently with broad participation of elected institutions, stakeholders, key donors and regional development banks, and have a clear link with the agreed international development goals. OECD countries are providing substantial (and increasing) support for the implementation of PRS, through their bilateral assistance as well as through their contributions to multilateral institutions. The success of PRS initiatives will hinge on donors and recipients honouring their respective commitments. For donors, this will imply refraining from excessive steering of the various processes. The DAC Guidance on Sustainable Development Strategies provides advice on actions that development agencies can take to support sustainable development goals in partner countries, and suggests ways of monitoring progress (OECD, 2001x). For developing country partners, the challenge will be to mobilise all actors around long-term development and poverty reduction goals, taking into account social and environmental sustainability dimensions. This implies, for example, ensuring that action plans formulated in response to the desertification, climate change, and biodiversity conventions are fully integrated into national poverty reduction efforts. The OECD Development Assistance Committee (DAC) is working to formulate guidance for donors to mainstream these issues in their development co-operation, taking maximum advantage of available “win-win” opportunities (OECD, 2002g).

Another way OECD countries are working to increase the value of ODA is by “untying” it. Tied aid raises the cost of many goods and services. It also increases the administrative burden on both

recipients and donors, and tends to favour projects that require capital intensive imports or donor-based technical expertise, rather than smaller and more poverty-focused programmes.

OECD countries took an important step in untying aid by adopting a Recommendation on Untying Official Development Assistance to the Least Developed Countries (April 2001). Under this agreement, donors will untie their aid to the least developed countries provided for a range of purposes (for balance of payments and structural adjustment support, debt forgiveness, sector and multi-sector programme assistance, investment project aid, import and commodity support, commercial services contracts, and ODA to non-governmental organisations for procurement-related activities). Some OECD countries have indicated their intention to extend the coverage of this agreement to include other categories of aid, as well as aid to higher-income developing countries.

Since 1992, the tied aid disciplines of the Export Credit Arrangement operated under the auspices of the OECD have been successful in alleviating trade distortions, as well as in redirecting aid towards sectors that can particularly support sustainable development (*e.g.* health, education, and social sectors) and poorer developing countries, thus providing more effective aid to those countries most in need (*i.e.* with a GNI per capita currently below USD 2 995). Twenty-six countries have agreed to implement a common approach on environment and officially supported export credits.

Harmonising donor practices can also increase the effectiveness of ODA, by reducing duplication of efforts and lessening the administrative burden on donor and recipient governments. For example, the OECD DAC have, together with the participation of recipient countries, established a Task Force on Donor Practices, which is now developing a set of “good practice” reference papers which will highlight practices such as upstream analysis and dialogue, financial management, monitoring and reporting, and sectoral approaches, with a view to strengthening recipient countries’ ownership.

A major effort is also under way to reduce the repayment burden of Heavily Indebted Poor Countries (HIPC), most of which are the least developed countries of sub-Saharan Africa. A substantial part of this debt is owed to international financial institutions, but ODA loans, bank loans, and export credits from OECD countries are also involved. The HIPC process is explicitly designed to reduce debt to manageable levels, and to eventually enable recipient countries to gain wider access to international

Box 4.3. Supporting technology diffusion: lessons from experience

- *Technology diffusion requires building capacity, not just providing hardware.* The main constraint to the diffusion of existing technology is a lack of the institutional, technical, and managerial capacities needed to manage change.
- *Financial institutions play a key role.* In many countries, weak financial institutions, as well as limited access to credit constrain the development of business. In addition, financial institutions often have limited capacity to assess the financial benefits of cleaner techniques and technologies.
- *Domestic policies and regulations are important.* Subsidies for key inputs such as energy and water, or weak enforcement of environmental regulations, reduce incentives for industry to develop and apply new technologies.
- *Public pressure is essential.* Improving public knowledge of the health and other impacts of environmental degradation can assist in mobilising collective efforts towards environmental protection and create demand for the improved environmental performance of public and private actors.
- *Supporting technology diffusion is a long-term effort.* Capacity development is a long-term process, and its results will have to be absorbed and accepted into the general societal fabric of a country. This often requires a continuous effort over a long period of time. Effective technology co-operation may require commitments for support that go beyond the normal planning horizon of 3-5 years, often extending to 10-20 years.

finance on a sustainable basis. The HIPC initiative is designed to “front-load” relief, enabling it to take effect more quickly. OECD countries have also agreed to a Statement of Principles aiming to discourage the provision of officially supported export credits to the HIPCs for unproductive expenditure. This measure seeks to ensure that non-essential capital goods and projects that do not contribute to the social and economic development of the poorest nations, but have the effect of increasing their debt burdens, do not benefit from the official export credit support of OECD governments. HIPC debt relief is intended to supplement annual net ODA flows, not to replace them.

ODA is only one of the ways in which OECD countries can contribute to poverty reduction and other development objectives. Development co-operation does have a crucial role to play, but it cannot realise its full potential if it operates in a vacuum. The issue of coherence among policies, both in developing and developed countries, is therefore critical. For example, as discussed earlier, trade and investment policy can be much more important for many countries. Donors are increasing their assistance to strengthen trade capacities in developing countries, while at the same time they continue to restrict the access of developing countries to their markets. Such examples of “policy incoherence” are often long-standing, and politically difficult to resolve in ways that are mutually satisfactory. At a minimum, policy priorities should be set with full knowledge of their implications for other actors and goals, both domestically and abroad.

One area in which policy coherence is especially important is that of technology development and co-operation. The dissemination of cleaner techniques and technologies to a wider range of users is likely to yield additional economic, environmental, and social benefits at the same time – thereby contributing directly to sustainable development. Access to environmentally friendly technology, including in the area of energy production and consumption, is generally considered to be an important precondition for sustainable development. Tariffs and other trade barriers often stand in the way of trade in environmental goods and services. The Doha Development Agenda calls for the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services. The key is to make sure that policies that affect technology development and diffusion all work in the same direction (see Box 4.3).

NOTES

1. The specific role of the OECD as one of a number of major international institutions working towards sustainable development is described in Annex I. This Annex discusses the policy and analytical work of the organisation that supports countries in working co-operatively towards sustainable development.
2. While it is clear that accumulation of capital is important for growth, the impact of investment in the different forms of capital is less obvious. Some empirical analysis has been undertaken to illuminate the impact of specific policies and institutions on output growth in OECD countries (OECD, 2000a).
3. A key choice in defining poverty is specifying the income threshold below which people are classified as being poor. In this report, a *relative* poverty threshold is used for OECD countries: individuals are considered poor if their available income from all sources is substantially lower than that of a typical person in their country of residence. *Extreme* poverty thresholds, on the other hand, set the minimum income required to afford an absolute standard of living: this is the measure used in this report to discuss poverty in developing countries.
4. These figures account for only those emissions generated within OECD countries, not including those generated through the production of goods outside OECD countries which are then imported for consumption in OECD countries. Combining estimates of both carbon embodied in a domestic production (less exports) and those embodied in imported goods would provide a clearer picture of the level of carbon dioxide emissions associated with consumption activities in a specific country. The OECD is starting a project that would attempt to generate such estimates for a subset of OECD countries.
5. Recent studies indicate that global fish catches may have been over-reported (Watson and Pauly, 2001).
6. Environmentally related taxes are unrequited levies on emissions or discharges of pollutants, disposal and treatment of waste, and use of environmentally harmful products, such as petroleum products, electricity, certain chemicals and the like. In co-operation with the European Commission and the International Energy Agency, the OECD has developed an online database of environmentally related taxes in OECD countries (see www.oecd.org/env/tax-database/).
7. Calculated using producer subsidy equivalents.
8. See, for example, the OECD Recommendation of the Council on Improving the Environmental Performance of Public Procurement [C(2002)3] (www.oecd.org).

Annex I

OECD SUPPORT FOR SUSTAINABLE DEVELOPMENT

The OECD brings together 30 Member countries sharing a commitment to democratic government and the market economy. Many of its activities have a global reach, maintaining active relationships with some 70 other countries, non-governmental organisations and civil society. The Organisation provides member governments with a setting in which to discuss, develop and improve a range of public policies. They compare experiences, seek answers to common problems and work to co-ordinate and harmonise domestic and international policies. The Organisation is interdisciplinary in nature. Its expertise covers the economic, social, and environmental fields, as well as development co-operation, trade, fiscal, public management, scientific, and other sectoral policies. The OECD's multidisciplinary capacity for analysis and policy dialogue, its holistic approach to issues, and its unique process for building capacity by sharing best practices and monitoring country performance through peer pressure, makes it particularly well suited to support governments in their pursuit of sustainable development.

The OECD plays a prominent role in fostering economic growth, social development, environmental management and good governance amongst its Member countries, as well as through a programme of co-operation with developing and other non-member countries. By identifying emerging issues and the policies that work, it helps policy-makers to develop strategic orientations for their countries. The OECD is particularly well known for its country surveys and reviews, and its data collection and indicators. Discussions amongst countries at the OECD sometimes result in internationally agreed instruments, such as Decisions and Recommendations, in areas where multilateral agreement is necessary to make progress in a globalised economy. Dialogue, consensus building and peer pressure are at the very heart of OECD.

Analytical work and policy recommendations

The OECD provides a setting for reflection and discussion about public policies amongst countries, based on research and analysis. While this role is only occasionally high-profile, it is crucial. It is a process that begins with data collection and analysis and moves on to collective discussion of policy. The OECD facilitates the sharing of country experiences, the development of policy recommendations based on these experiences, and sound analytical research. It also provides the opportunity for the identification and examination of emerging issues. For example, the OECD has been at the forefront of discussion on the opportunities and challenges of modern biotechnology – hosting a series of multi-stakeholder international conferences in 2000 and 2001 on the environmental and health effects of living modified organisms (LMOs).

In addition to the work undertaken within the Committees and subsidiary bodies of the Organisation which contribute to analysis of issues under the separate pillars of sustainable development, the OECD has undertaken since 1998 specific co-ordinated analysis across the organisation on sustainable development. The comprehensive analysis and the policy recommendations resulting from this three-year horizontal project on sustainable development, summarised in the OECD report *Policies to Enhance Sustainable Development*, were presented to OECD Ministers of Finance and of Environment when they met at the OECD in May 2001 (OECD, 2001; OECD, 2001x). In addition to welcoming these results, Ministers also asked the OECD to continue its analytical work to support their policy decisions, in particular in terms of:

- developing agreed indicators that measure progress across all three dimensions of sustainable development, including decoupling of economic growth from environmental degradation, with a view to incorporating these into OECD's economic, social and environment peer review processes, and filling gaps in the statistical and scientific data;
- identifying how obstacles to policy reforms – in particular to the better use of market-based instruments, and to the reduction of environmentally harmful subsidies – can be overcome; and deepening its analytical work on these instruments;
- analysing further the social aspects of sustainable development, including work on human and social capital, as well as their interaction with their economic and environmental dimensions; and
- providing guidance for achieving improved economic, environmental and social policy coherence and integration.

Work has been launched in the OECD on these areas, and will continue over the next three years. Key results will be presented to Ministers in 2004.

The OECD also promotes good governance through analysis of the effects of existing and proposed policies, and by developing policy recommendations and legal instruments (see pages 75-76). It is also working on improving information, consultation and participation in policy-making, and has recently published a report and a handbook for strengthening government-citizen connections (OECD, 2001i). The OECD is also working on improving governance for sustainable development, including through an international seminar held in November 2001, publication of the results of five country cases studies (OECD, 2002e), and new work to develop a concrete checklist on improving policy coherence and integration for sustainable development to provide guidance to policy makers (OECD, 2002h).

To foster coherence and co-ordination in its own work on sustainable development, the OECD set up, in 2001, a high-level *ad hoc* Group on Sustainable Development to oversee the work of the Organisation on this issue. The Bureau members of the Group include the Chairs of the OECD Economic, Social, and Environmental Policy Committees.

Data and indicators

Exchanges among OECD governments flow from the information and analysis provided by the Secretariat. The Secretariat collects data, monitors trends, analyses and forecasts economic developments, and researches social changes or evolving patterns in trade, environment, agriculture, technology, taxation and more. A wide range of statistics are generated to help Member countries monitor developments in their own countries, compare progress across countries, and to provide a basis for the harmonisation of policies and regulations. The OECD also promotes and develops international statistical standards and co-ordinates statistical activities with other international agencies.

The OECD works on the development and collection of indicators to measure progress towards sustainable development, including indicators covering all three dimensions of sustainable development: economy, environment, and society. To underpin its economic analysis, the OECD maintains databases containing a wide range of statistics on such subjects as national accounts, balance of payments, trade, prices and finance. The OECD is also active in the development of best practices for the measurement of economic variables, and of techniques for measuring productivity, capital stock, research and development and prices. The OECD has been involved in the development of environmental indicators over the past ten years, including constructing a core set of environmental indicators and several sets of sectoral indicators – including agriculture, transport and energy – to promote integration of environmental concerns into sectoral policy making. The OECD is also active in the development of techniques for environmental accounting and for the valuation of environmental assets. In terms of social indicators, a first list was developed by the OECD in the early 1980s. In 2001, following a request from OECD Ministers for Social and Health policy, a set of indicators to summarise social conditions in OECD countries and to assess the effectiveness of measures taken to pursue social objectives, was released (OECD, 2001a). The OECD also collects data and indicators for regional and local environmental, social and economic conditions. A database of such information for 500 large and 2 500 intermediate sized regions in OECD countries is maintained.

Recent initiatives focus on using sustainable development indicators more systematically in OECD peer review processes (see Box A1) and on further developing indicators that measure de-coupling of environmental pressure from economic growth.

Box A1. Sustainable development indicators and their use in the OECD peer review processes

As part of a new mandate on sustainable development requested by Ministers at the May 2001 OECD Ministerial Council Meeting, the Organisation has started a process for agreeing on indicators of sustainable development that can be used in its regular peer reviews of government policies and performance. As a first step, a menu of important policy issues has been drawn up. From this menu, a few areas will be selected for each country peer review, based on their relevance to that country. A special report examining indicators that can measure the decoupling of environmental pressures from economic growth will feed into this work.

The second step of the process will consist of using these indicators for the actual peer reviews. About two years will be required to ensure full coverage of OECD countries in the regular economic surveys. A synthesis of the main lessons learned will be prepared for the OECD annual ministerial meeting in 2004.

Peer review processes

The policies of OECD countries that most directly affect sustainable development are assessed regularly in the OECD Economic Surveys, Environmental Performance Reviews, the peer reviews of the Development Assistance Committee (DAC) Members' Development co-operation programmes, IEA Energy Policy Reviews, and regular reviews of country science and technology policy developments. The review of trends, policies and country performances, as well as the use of peer pressure to improve them, is a basic OECD function. Each review assesses the effectiveness of current policies, examines selected indicators, and provides recommendations to help the reviewed country consolidate achievements and make further progress. The reviews have extended to some non-member countries.

The Economic Surveys focus on the macroeconomic and structural policies that could boost economic performance on a sustainable basis. In-depth chapters on specific issues are also included in each survey. Since 1998, reviews for 13 countries have focussed specifically on "encouraging environmentally sustainable growth" as part of the OECD horizontal project on sustainable development.

The OECD Environmental Performance Reviews assess progress towards national objectives of environmental policy and sustainable development, as well as compliance with related international commitments. After reviewing all member Countries, a second review cycle was launched in 2000, with a special focus on sustainable development issues and on the integration of economic, social, and environmental dimensions of decision-making. The OECD also reviewed a few non-member countries (*e.g.* Russia) and has supported UN-ECE in launching a similar programme of environmental performance reviews for countries in central and eastern Europe.

Examinations of the Development Assistance Committee Members' aid policies are unique to the OECD. The DAC peer review is prepared by the Secretariat after visiting development authorities and officials both in country capitals and in the field. Recent work focuses on assessing agencies' efforts towards internationally agreed objectives, and compliance with selected DAC Guidelines in key development areas (including environment and sustainable development). DAC members have agreed on the need to develop more systematic approaches to integrate sustainable development into DAC peer reviews, and have started working towards this.

OECD Decisions, Recommendations and other legal instruments

Sometimes, the analytical work of the Organisation and its policy recommendations lead to international agreement to move forward on an issue for which multi-lateral co-operation can benefit all participants. In such cases, the Organisation can facilitate the development of legal instruments to support such co-operation, either for adoption by the OECD Council or for negotiation within the framework of the Organisation.

OECD Council Decisions are legally binding on all those Member countries that do not abstain at the time they are adopted. While they are not formally international treaties, they do entail the same kind of legal obligations. Currently, there are over 30 OECD Decisions in place. OECD Council Recommendations, of which there are over 120, are not legally binding, but practice accords them great moral force as representing the political consensus of Member countries. Member countries are expected to do their utmost to fully implement a Recommendation. Other political instruments developed within the framework of the Organisation include Declarations, Arrangements and Understandings, and international agreements.

A number of the existing OECD instruments have played a prominent role in favouring greater integration of the three pillars of sustainable development in policy making over the last few decades (see also Box A2). For example, in 1972, the OECD Council adopted a Recommendation on the Polluter Pays Principle. This recommendation provided a foundation for many OECD country pollution prevention and control policies. It specifies that the polluter should bear the expenses of carrying out environmental protection measures decided by public authorities to ensure that the environment is in an acceptable state. Similarly, the 1998 OECD Recommendation on Environmental Information brings together social and environmental objectives by calling for access by the public and civil society organisations to environmental information.

Other examples of OECD instruments that are helping to contribute to sustainable development include the OECD Convention on Combating Bribery, the Export Credit Arrangement, and the OECD Guidelines for Multinational Enterprises, the OECD Declaration on International Investment, and the Principles for Corporate Governance.

The OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, which entered into force on 15 February 1999, makes it a crime to offer, promise or give a bribe to a foreign public official in order to obtain or retain international business deals. The Convention is open to adherence by non-OECD countries. The current 35 signatory countries, which includes all OECD countries, are committed to adopting common rules to punish companies and individuals who engage in bribery transactions. They are subjected to close monitoring, and an evaluation of each country reviewed is published on the OECD Internet site.

The OECD's work on export credits involves the maintenance and development of disciplines – the Export Credit Arrangement – that stipulate the most generous financial terms and conditions for officially supported export credits provided by governments. These disciplines, which are subject to ongoing negotiation, aim to eliminate trade distortions and subsidies in the provision of officially supported export credits. The OECD also provides a forum for

Box A2. DAC guidelines on sustainable development strategies

The OECD Development Assistance Committee is one of the key forums in which major OECD donors work together to formulate policies and approaches to guide their efforts to support developing country partners towards sustainable development. Amongst other activities, they have produced a number of Guidelines for countries, including on the development of national Strategies for Sustainable Development, and on Poverty Reduction.

The DAC Guidelines on Sustainable Development Strategies, for example, provide policy guidance on good practice and key principles for the development of national strategies, based on extensive country experience and analysis. They are being used by countries worldwide in the development of their National Strategies in the run-up to the 2002 World Summit on Sustainable Development.

Source: OECD (2001*w*).

discussion and co-ordination of national export credit policies and practices in the context of broader policy concerns. This forum has been actively working on issues relating to export credits and the environment and on export credits and bribery. During 2001, the OECD Export Credit Group agreed on an Action Statement on Bribery and Officially Supported Export Credits: twenty-six of the twenty-eight Group members agreed to implement a set of Common Approaches on the Officially Supported Export Credits and the Environment (which they will review in 2003 in light of experiences) and all Group members agreed a Statement of Principles on Officially Supported Export Credits and Unproductive Expenditure to the Highly Indebted Poor Countries (HIPCs).

Increasingly, business and industry are seen as having a special responsibility in contributing to the achievement of sustainable development. The OECD is supporting the development of government policies and voluntary approaches that encourage good corporate conduct. The OECD Guidelines for Multinational Enterprises are recommendations to enterprises, made by the 36 governments (including 6 non-OECD countries) that adhere to them (see Box 3.3, Chapter 3). Although the Guidelines are non-binding, governments are committed to promoting their observance.

Dialogues with non-member countries

The OECD maintains dialogues with all regions of the world through the Centre for Co-operation with Non-Members. The Centre promotes and co-ordinates the OECD's policy dialogue and co-operation with a range of transition, emerging, and developing countries. Its activities aim to share institutional and policy options and to promote non-member country participation in OECD Committees and adherence to OECD norms and instruments.

The Centre has recently set up eight single-issue Global Forums, as specialised initiatives and networks, to address issues of mutual concern between OECD and non-OECD countries. One of these is a Global Forum on Sustainable Development, the first event of which was a Conference on Financing the Environmental Dimension of Sustainable Development held in April 2002. It built on the lessons learned from the UN Financing for Development Conference in March 2002, and contributed to the ongoing discussion and analysis of effective financing for sustainable development. The other Global Forums will look at the issues of Agriculture, Competition, Governance, International Investment, the Knowledge Economy (including Biotechnology and E-Commerce), Taxation, and Trade. The first event of the Global Forum on International Investment was held in Autumn 2001, and looked at options for maximising the benefits of foreign direct investment.

Dialogues with stakeholders

The OECD recognises the valuable contribution civil society can make to the public policy-making process, particularly in the area of sustainable development, and attaches great importance to the Organisation's own consultations with stakeholder partners. OECD Committees and the Secretariat meet regularly with representatives of business (through the Business and Industry Advisory Committee to the OECD, or BIAC), trade unions (through the Trade Union Advisory Committee to the OECD, or TUAC), and environmental and development non-government organisations to discuss openly the findings and direction of OECD work on sustainable development.

A special OECD Forum, held annually since 2000, allows ministers and leaders from business, labour, and NGOs to discuss key issues of the 21st century. Held in conjunction with the OECD's annual Ministerial Council Meeting, the Forum is a multi-stakeholder dialogue providing a direct input into, and helping to shape the outcome of, the OECD Ministerial Meetings. The 2001 OECD Forum focussed on "Sustainable Development and the New Economy", and brought together some 1 500 participants from over 80 countries.

Annex II

MILLENNIUM DEVELOPMENT GOALS

Goals and targets	Indicators
Goal 1: Eradicate extreme poverty and hunger	
Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day.	1 Proportion of population below \$1 per day. 2 Poverty gap ratio [incidence x depth of poverty]. 3 Share of poorest quintile in national consumption.
Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger.	4 Prevalence of underweight children (under-five years of age). 5 Proportion of population below minimum level of dietary energy consumption.
Goal 2: Achieve universal primary education	
Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.	6 Net enrolment ratio in primary education. 7 Proportion of pupils starting grade 1 who reach grade 5. 8 Literacy rate of 15-24 year olds.
Goal 3: Promote gender equality and empower women	
Target 4: Eliminate gender disparity in primary and secondary education preferably by 2005 and to all levels of education no later than 2015.	9 Ratio of girls to boys in primary, secondary and tertiary education. 10 Ratio of literate females to males of 15-24 year olds. 11 Share of women in wage employment in the non-agricultural sector. 12 Proportion of seats held by women in national parliament.
Goal 4: Reduce child mortality	
Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate.	13 Under-five mortality rate. 14 Infant mortality rate. 15 Proportion of 1 year old children immunised against measles.
Goal 5: Improve maternal health	
Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio.	16 Maternal mortality ratio. 17 Proportion of births attended by skilled health personnel.
Goal 6: Combat HIV/AIDS, malaria and other diseases	
Target 7: Have halted by 2015, and begun to reverse, the spread of HIV/AIDS.	18 HIV prevalence among 15-24 year old pregnant women. 19 Contraceptive prevalence rate. 20 Number of children orphaned by HIV/AIDS.
Target 8: Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases.	21 Prevalence and death rates associated with malaria. 22 Proportion of population in malaria risk areas using effective malaria prevention and treatment measures. 23 Prevalence and death rates associated with tuberculosis. 24 Proportion of tuberculosis cases detected and cured under DOTS (Directly Observed Treatment Short Course).
Goal 7: Ensure environmental sustainability	
Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.	25 Proportion of land area covered by forest. 26 Land area protected to maintain biological diversity. 27 GDP per unit of energy use (as proxy for energy efficiency). 28 Carbon dioxide emissions (per capita). [Plus two figures of global atmospheric pollution: ozone depletion and the accumulation of global warming gases].

Goals and targets	Indicators
Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water.	29 Proportion of population with sustainable access to an improved water source.
Target 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers.	30 Proportion of people with access to improved sanitation. 31 Proportion of people with access to secure tenure. [Urban/rural disaggregation of several of the above indicators may be relevant for monitoring improvement in the lives of slum dwellers].
Goal 8: Develop a Global Partnership for Development	
Target 12: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system.	<i>Some of the indicators listed below will be monitored separately for the Least Developed Countries (LDCs), Africa, landlocked countries and small island developing states.</i>
Includes a commitment to good governance, development, and poverty reduction – both nationally and internationally.	<i>Official Development Assistance</i>
Target 13: Address the Special Needs of the Least Developed Countries.	32 Net ODA as percentage of DAC donors' GNI [targets of 0.7% in total and 0.15% for LDCs].
Includes: tariff and quota free access for LDC exports; enhanced programme of debt relief for HIPC and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction.	33 Proportion of ODA to basic social services (basic education, primary health care, nutrition, safe water and sanitation). 34 Proportion of ODA that is untied. 35 Proportion of ODA for environment in small island developing states. 36 Proportion of ODA for transport sector in land-locked countries.
Target 14: Address the Special Needs of landlocked countries and small island developing states.	<i>Market access</i>
(Through Barbados Programme and 22nd General Assembly provisions.)	37 Proportion of exports (by value and excluding arms) admitted free of duties and quotas. 38 Average tariffs and quotas on agricultural products and textiles and clothing. 39 Domestic and export agricultural subsidies in OECD countries. 40 Proportion of ODA provided to help build trade capacity.
Target 15: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term.	<i>Debt sustainability</i>
Target 16: In co-operation with developing countries, develop and implement strategies for decent and productive work for youth.	41 Proportion of official bilateral HIPC debt cancelled. 42 Debt service as a percentage of exports of goods and services. 43 Proportion of ODA provided as debt relief. 44 Number of countries reaching HIPC decision and completion points. 45 Unemployment rate of 15-24 year olds.
Target 17: In co-operation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries.	46 Proportion of population with access to affordable essential drugs on a sustainable basis.
Target 18: In co-operation with the private sector, make available the benefits of new technologies, especially information and communications.	47 Telephone lines per 1 000 people. 48 Personal computers per 1 000 people.
	Other Indicators to be determined.

ACKNOWLEDGEMENTS

This report was produced under the supervision of the OECD *ad hoc* Group on Sustainable Development.

The Report was prepared by a horizontal task force in the OECD, including representatives from most OECD Directorates. It was drafted by Wendy Ayres (consultant) and Helen Mountford, under the supervision of Rob Visser and the direction of Joke Waller-Hunter. Marie-Line Fontaine and Barbara Ladeuille provided secretarial support, and Eric Massey edited the Report.

Other contributors included:

Centre for Co-operation with Non-Members

Marilyn Yakowitz

Development Centre

David O'Connor

Development co-operation Directorate

Yasmin Ahmad

Richard Carey

Georg Caspary

Carol Gabyzon

Brian Hammond

Remy Paris

Rudolphe Petras

Directorate for Education, Employment, Labour, and Social Affairs

Dana Blumin

Georges Lemaître

Monika Queisser

Directorate for Financial, Fiscal, and Enterprise Affairs

Ayse Bertrand

Hans Christiansen

Kathryn Gordon

Christopher Heady

Isabelle Ynesta

Directorate for Food, Agriculture, and Fisheries

Anthony Cox

Wilfrid Legg

Luis Portugal

Carl-Christian Schmidt

Directorate for Science, Technology, and Industry

Sharon Standish

Candice Stevens

Andrew Wykoff

Economics Directorate

Sveinbjorn Blondal

Richard Herd

Environment Directorate

Christian Averous

Jean-Philippe Barde

Carla Bertuzzi

Nils-Axel Braathen

Myriam Linster

Heino Von Meyer

Jan Corfee Morlot

Brendan Gillespie

Tom Jones

Kenneth Ruffing

Cristina Tebar Less

Frédérique Zegel

General Secretariat

Martine Durand

Françoise Michelson

Marco Mira d'Ercole

International Energy Agency

Kristi Varangu

Nuclear Energy Agency

Thierry Dujardin

OECD Round Table on Sustainable Development

Simon Upton
Vangelis Vitalis

Lynda Hawe
Philippe Herve
Andreas Lindner

Public Management Service

Frédéric Boudier

Territorial Development Service

Josef Konvitz
Lindsay McFarlane

Statistics Directorate

Derek Blades
Lydia Deloumeaux
Enrico Giovannini
Michèle Hainaut

Trade Directorate

Dale Andrew
Ron Steenblik
Janet West

ACRONYMS AND ABBREVIATIONS

DAC	Development Assistance Committee
DOTS	Directly Observed Treatment Short Course
FDI	Foreign direct investment
GDP	Gross domestic product
GNI	Gross national income
GSP	Generalised System of Preferences
HIPCs	Heavily Indebted Poor Countries
IEA	International Energy Agency
ISCED	International Standard Classification of Education
ITC	International Trade Centre
IUCN	International Union for the Conservation of Nature
LDCs	Least developed countries
LMOs	Living modified organisms
NO_x	Nitrogen oxides
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
PPP	Purchasing power parity
PRS	Poverty reduction strategies
R&D	Research and development
SO_x	Sulphur oxides
TRIPS	Trade Related Intellectual Property Rights
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UN-ECE	United Nations Economic Commission for Europe
VOCs	Volatile organic compounds
WTO	World Trade Organization

BIBLIOGRAPHY

OECD REFERENCES

- OECD (Organisation for Economic Co-operation and Development) (1995),
Adjustments in OECD Agriculture: Issues and Policy Responses, OECD, Paris.
- OECD (1997),
Regulatory Impact Analysis: Best Practices in OECD Countries, OECD, Paris.
- OECD (1998),
Improving the Environment through Reducing Subsidies: Part II, Analysis and Overview of Studies, OECD, Paris.
- OECD (1999a),
A Caring World: the New Social Policy Agenda, OECD, Paris.
- OECD (1999b),
OECD Economic Survey: Hungary, OECD, Paris.
- OECD (1999c),
The Price of Water: Trends in OECD Countries, OECD, Paris.
- OECD (1999d),
Voluntary Approaches for Environmental Policy: An Assessment, OECD, Paris.
- OECD (2000a),
Economic Outlook No. 68, OECD, Paris.
- OECD (2000b),
OECD International Direct Investment Statistics Yearbook, OECD, Paris.
- OECD (2000c),
Transition to Responsible Fisheries: Economic and Policy Implications, OECD, Paris.
- OECD (2000d),
OECD Guidelines for Multinational Enterprises, OECD, Paris.
- OECD (2000e),
International Trade and Core Labour Standards, OECD, Paris.
- OECD (2001a),
OECD Environmental Indicators: Towards Sustainable Development 2001, OECD, Paris.
- OECD (2001b),
OECD Environmental Outlook, OECD, Paris.
- OECD (2001c),
Agricultural Policies in OECD Countries: Monitoring and Evaluation, OECD, Paris.
- OECD (2001d),
Society at a Glance, OECD, Paris.
- OECD (2001e),
Health at a Glance, OECD, Paris.
- OECD (2001f),
Education at a Glance, OECD, Paris.
- OECD (2001g),
OECD Environmental Outlook for the Chemicals Industry, OECD, Paris.
- OECD (2001h),
Environmental Indicators for Agriculture Volume 3: Methods and Results, OECD, Paris.
- OECD (2001i),
Citizens as Partners: Information and Public Participation in Policy-Making, OECD, Paris.

- OECD (2001j),
Environmentally Related Taxes in OECD Countries: Issues and Strategies, OECD, Paris.
- OECD (2001k),
Review of Fisheries in OECD Countries: Policies and Summary Statistics, OECD, Paris.
- OECD (2001l),
Sustainable Development: Critical Issues, OECD, Paris.
- OECD (2001m),
Domestic Transferable Permits for Environmental Management: Design and Implementation, OECD, Paris.
- OECD (2001n),
Corporate Responsibility: Private Initiatives and Public Goals, OECD, Paris.
- OECD (2001o),
Cities for Citizens: Improving Metropolitan Governance, OECD, Paris.
- OECD (2001p),
The New Economy: Beyond the Hype, OECD, Paris.
- OECD (2001q),
"OECD Environmental Strategy for the First Decade of the 21st Century", www.oecd.org/env, OECD, Paris.
- OECD (2001r),
"DAC Guidelines: Poverty Reduction", www.oecd.org/dac, OECD, Paris.
- OECD (2001s),
"Poverty – Gender – Environment Linkages", *The DAC Journal* 2001, Volume 2, No. 4, OECD, Paris.
- OECD (2001t),
The Development Dimensions of Trade and Environment, OECD, Paris.
- OECD (2001u),
Financial Market Trends, No. 79, Volume 2001, Issue 2, OECD, Paris.
- OECD (2001v),
"DAC Guidelines: Strengthening Trade Capacity for Development", www.oecd.org/dac, OECD, Paris.
- OECD (2001w),
"DAC Guidelines: Strategies for Sustainable Development", www.oecd.org/dac, OECD, Paris.
- OECD (2001x),
Policies to Enhance Sustainable Development, OECD, Paris.
- OECD (2002a),
forthcoming), *Indicators to Measure Decoupling of Environmental Pressures from Economic Growth*, OECD, Paris.
- OECD (2002b, forthcoming),
OECD Environmental Data: Compendium 2002, OECD, Paris.
- OECD (2002c),
Agricultural Policies in OECD Countries: Monitoring and Evaluation, OECD, Paris.
- OECD (2002d),
Household Consumption Patterns: Towards Sustainability?, OECD, Paris.
- OECD (2002e),
Governance for Sustainable Development: Five OECD Case Studies, OECD, Paris.
- OECD (2002f),
Technology Policy and the Environment, OECD, Paris.
- OECD (2002g, forthcoming),
"DAC Guidelines: Development co-operation and the Rio Conventions", www.oecd.org/dac, OECD, Paris.
- OECD (2002h, forthcoming),
Checklist on Improving Policy Coherence and Integration for Sustainable Development, OECD, Paris.

NON-OECD REFERENCES

- FAO (UN Food and Agriculture Organization) (1999),
State of the World's Forests 1999, FAO, Rome.
- Förster, M. (2000),
"Trends and Driving Factors in Income Distribution and Poverty in the OECD area, Labour Market and Social Policy", Occasional Papers, No. 42, OECD, Paris.
- IEA (International Energy Agency) (2001),
Energy Policies of IEA Countries: 2001 Review, IEA/OECD, Paris.

- IEA/UNEP (United Nations Environment Programme) (2001),
Workshop Report “Energy Subsidy Reform and Sustainable Development: Challenges for Policymakers,” IEA/
UNEP, Paris.
- IPCC (Intergovernmental Panel on Climate Change) (2001a),
Climate Change 2001: The Scientific Assessment, “Policy Makers Summary”, Working Group I contribution to the Third
Assessment Report of the IPCC, Cambridge University Press, Cambridge.
- IPCC (2001b),
Climate Change 2001: Impacts, Adaptation, and Vulnerability, “Summary for Policy Makers and Technical Summary of
the Working Group II Report”, Cambridge University Press, Cambridge.
- NEA (Nuclear Energy Agency) (2001),
Nuclear Energy in a Sustainable Development Perspective, OECD, Paris.
- UN (United Nations) (2001),
World Population Prospects: 1950-2050, UN, New York
- UNCTAD (United Nations Conference on Trade and Development) (2000),
World Investment Report, UN, New York.
- Watson, R. and Pauly, D. (2001),
“Systematic Distortions in World Fisheries Catch Trends”, in *Nature*, 414, pp. 534-536.
- World Bank (2000),
World Development Indicators, World Bank, Washington, D.C.
- World Bank (2001),
World Development Report 2000/2001: Attacking Poverty, Oxford University Press, New York.
- World Bank (2002),
Globalization, Growth, and Poverty, World Bank, Washington, D.C.

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(00 2001 1 G 1 P) – No. 81391 2002