



Monitoring progress towards Green Growth: OECD indicators

Workshop on Green Growth Indicators in LAC countries

OECD-UNIDO

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OECD Environment Directorate

- **Multi-disciplinary inter-governmental process**
 - Involving 25 OECD Committees: delegates from Ministries of Finance, Economy, Environment, Agriculture, Development Co-operation, Industry, etc.
- **Drawing upon long-standing experience with:**
 - Fact-based policy analysis and evaluation
 - Country reviews
 - Environmental policies and economy-environment policy integration
- **Strategy delivered to OECD Ministers in 2011:**
 - Towards Green Growth
 - Tools for delivering on green growth
 - Towards Green Growth: Measuring Progress – OECD Indicators
- **Embedded in OECD work on new sources of growth**



What is green growth?

A working definition

Green growth is about fostering **economic growth** and development while ensuring that the **natural assets** continue to provide the resources and environmental services on which our well-being relies.

To do this it must catalyse investment and innovation which will underpin sustained growth and give rise to new **economic opportunities**.

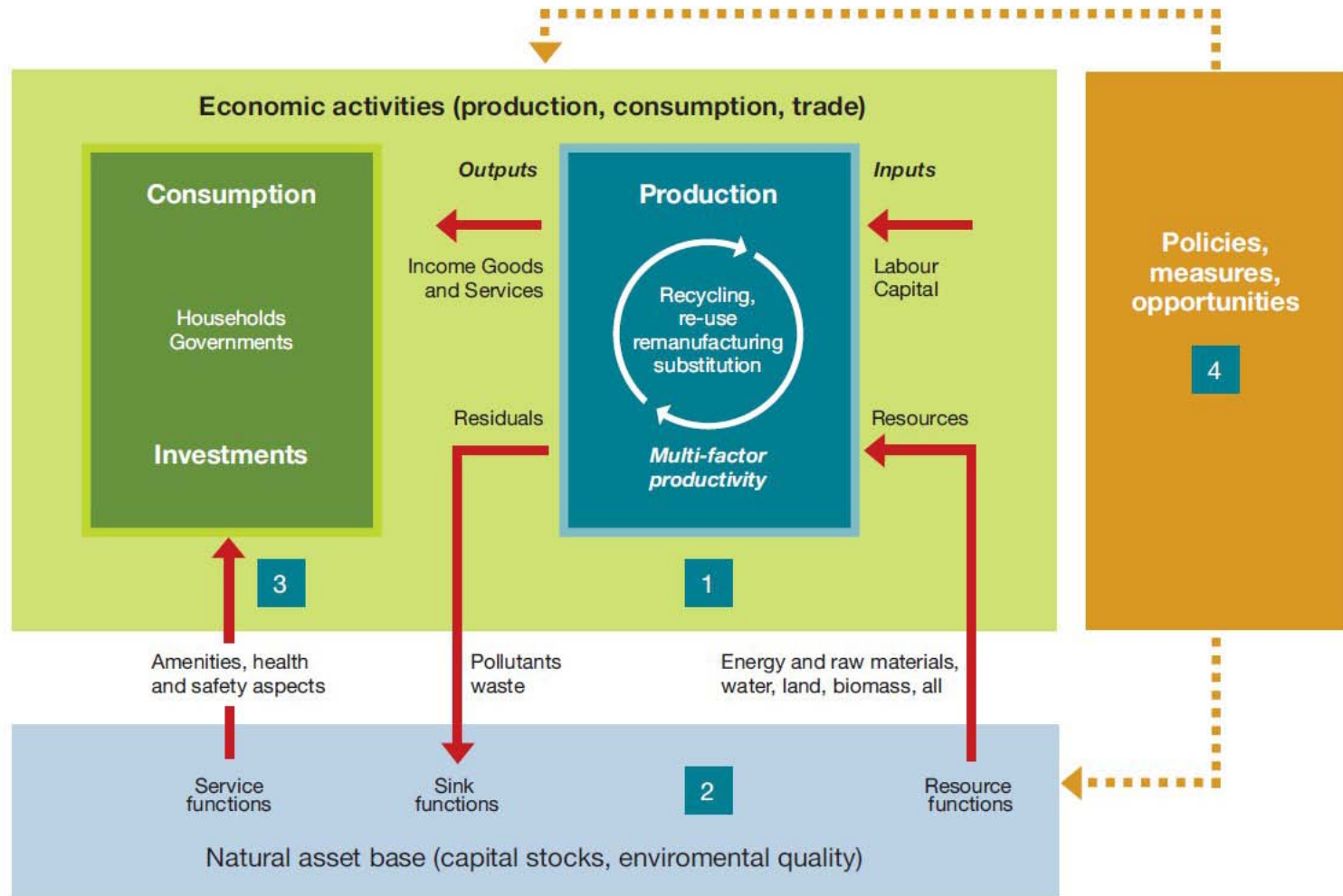
What is green growth?

The essentials

- **Green Growth focuses on the economic and environmental pillars of sustainable development**
 - Emphasises need to make economic and environmental policies more compatible and mutually-reinforcing.
 - Emphasis need for a low-carbon and resource efficient economy
 - Emphasises economic opportunities
 - requires an **operational** policy framework to help achieve concrete, **measurable** results
 - needs to pay attention to distributive issues and an equitable transition towards GG
- **Reframing growth and analytical frameworks**
 - Account for the contribution that natural assets and ecosystem services make to growth: in measurement, in analysis, in decision making.
 - Improve the understanding of the determinants of GG; of the interdependence , synergies and trade-offs between economic and environmental policies .
- → **Role of measurement tools and indicators**

Towards green growth - Monitoring progress

Measurement framework



1 The environmental and resource productivity of the economy

- Carbon and energy productivity
- Resource productivity: materials, nutrients, water
- Multi-factor productivity

2 The natural asset base

- Renewable stocks: water, forest, fish resources
- Non-renewable stocks: mineral resources
- Biodiversity and ecosystems

3 The environmental dimension of quality of life

- Environmental health and risks
- Environmental services and amenities

4 Economic opportunities and policy responses

- Technology and innovation
- Environmental goods & services
- International financial flows
- Prices and transfers
- Skills and training
- Regulations and management approaches

Socio-economic context and characteristics of growth

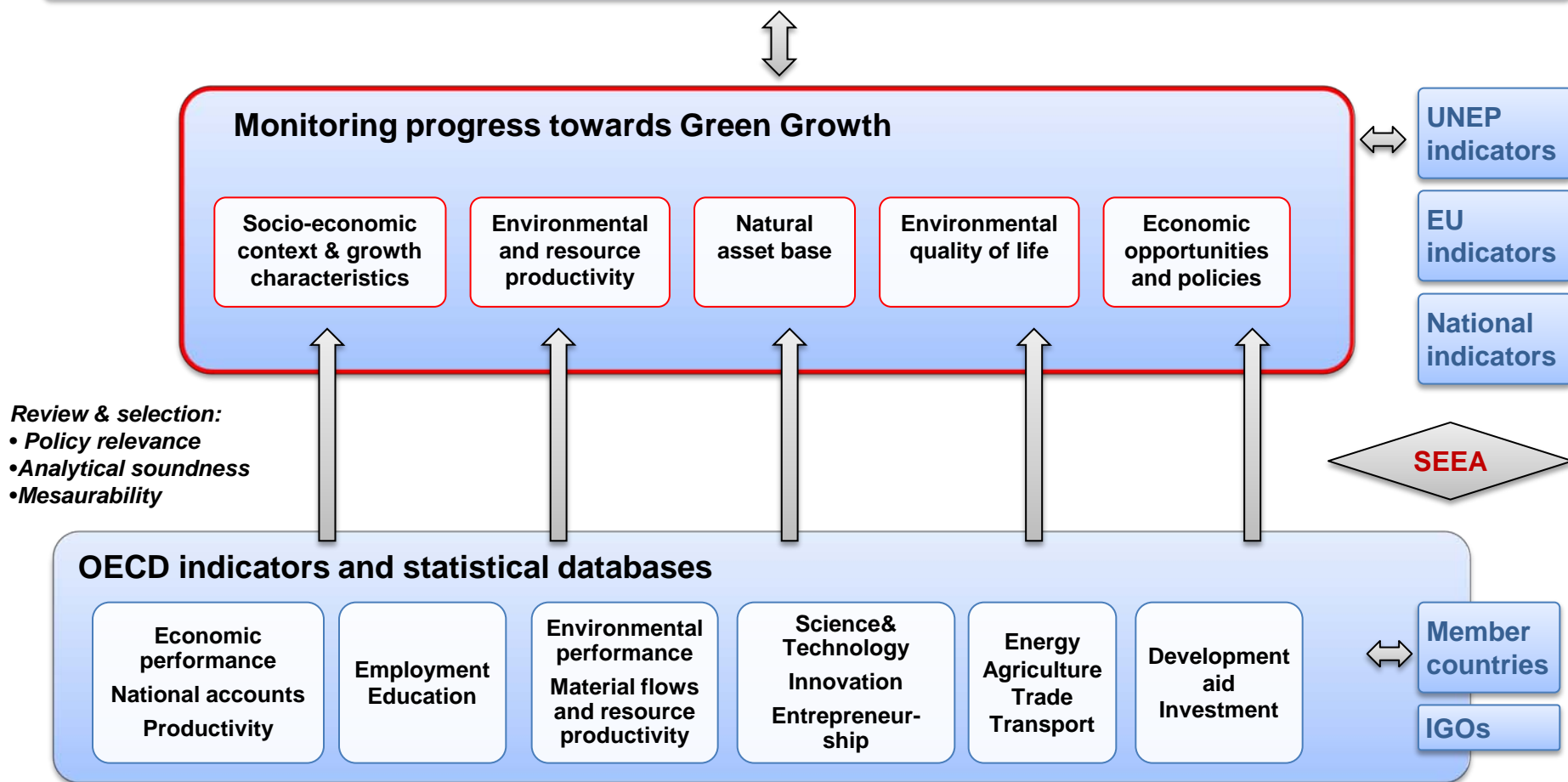
- Economic growth and structure
- Productivity and trade
- Labour markets, education and income
- Socio-demographic patterns

- **Basis**
 - Selected from existing indicator sets and refined
 - Multi-disciplinary inter-governmental process
- **Main criteria for selecting indicators and validating their choice**
 - Policy relevance; Analytical soundness; Measurability
- **Characteristics**
 - Pragmatic approach
 - Balanced coverage of “green” and “growth”, and of their elements
 - No composite indicator, rather a set of internationally comparable indicators (≈ 25)
 - Flexible framework → easy to adapt to countries’ circumstances
→ easy to improve and develop further
- **Implementation challenges**
 - Data quality and availability
 - Interpretation and communication
 - Institutional arrangements and capacity: many actors involved; need for continuity in measurement effort; funding

Towards green growth - Monitoring progress

The foundations and the overall indicator architecture

Measuring the progress of societies – OECD work and Global project – GDP and beyond



Towards green growth - Monitoring progress

Ongoing work and future developments

- **Advance the measurement agenda**
 - Consistent information for constructing of indicators → The System of Environmental-Economic Accounts (SEEA)
 - Extended accounting framework to capture better growth contribution of natural assets (stocks, flows, physical and monetary values)
 - Adjusted multi-factor productivity measures
 - Natural resource index
 - Monitoring progress at sectoral and local level
 - Measuring the “greening” of economic sectors
 - Biodiversity and ecosystem services
 - Subjective dimensions of quality of life
 - Headline indicators
- **Apply the measurement framework and the indicators in OECD work and in countries**
- **Publish the indicators regularly**
 - GG indicators database online: www.oecd.org/greengrowth/indicators

Delivering on green growth

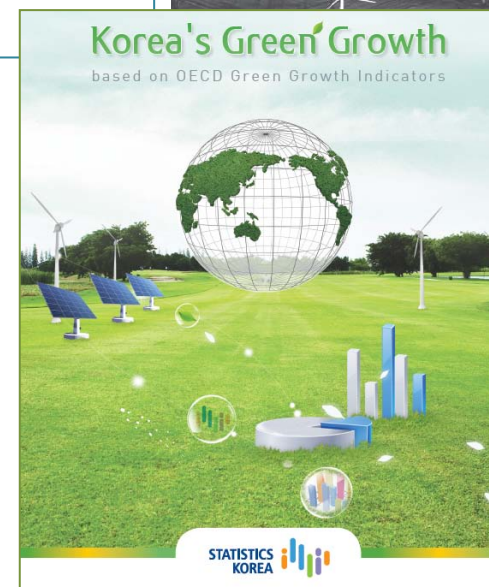
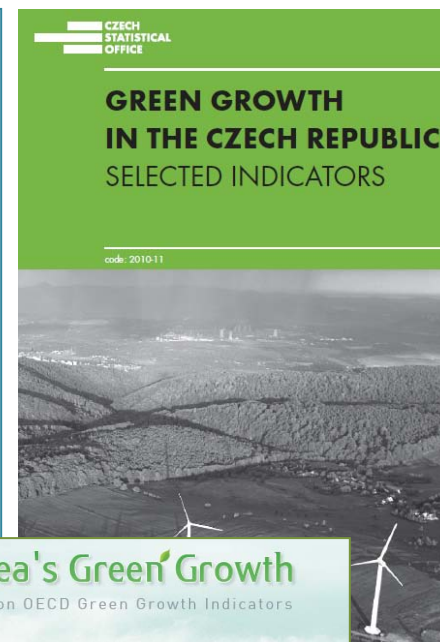
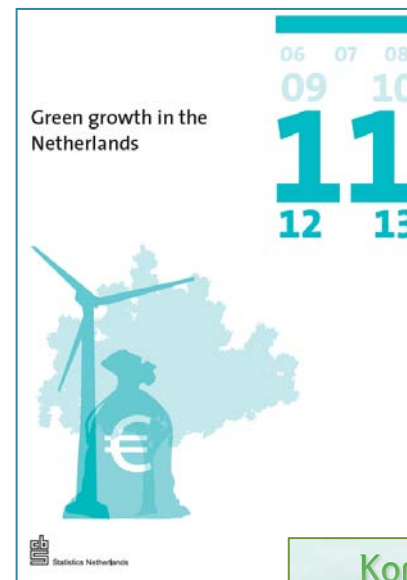
Green Growth Indicators in practice

Green growth indicators are **used in OECD work**: country studies, peer reviews

Green growth indicators are **applied in countries** (OECD countries, emerging economies, developing countries)

- The Czech Republic, Korea and the Netherlands have applied the OECD green growth measurement framework
- Work is underway in Mexico, Colombia, Costa Rica, Ecuador, Guatemala, Paraguay, ... (UNIDO).
- Work is underway in Kyrgyzstan.
- Work is planned in East-Asian countries.

- Feedback on policy relevance
- Exchange of experience and best practices
- Contribution to indicator improvement



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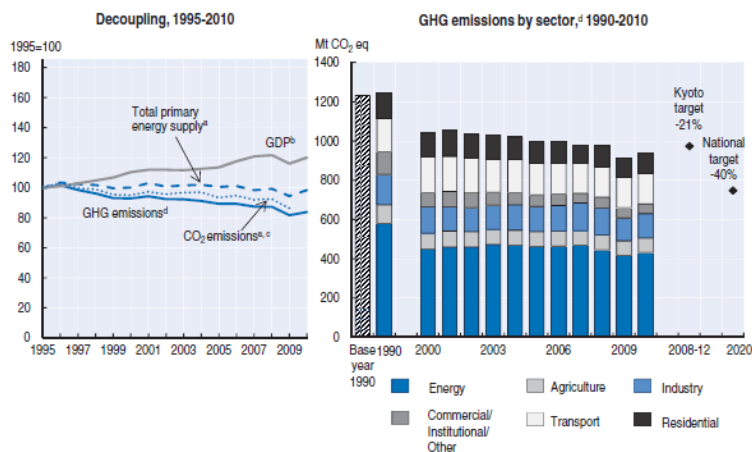
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The environmental and resource productivity of the economy

Figure 1.1. CO₂ and GHG emissions



Raw material productivity, 1994-2010^b

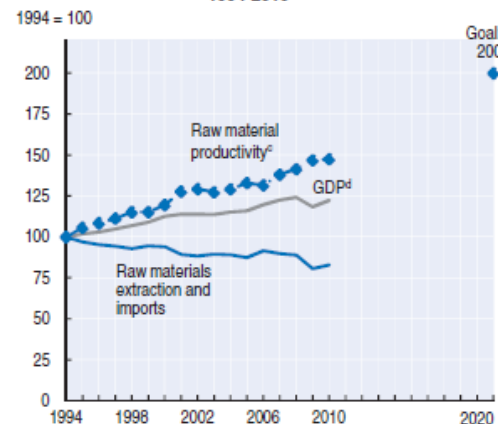
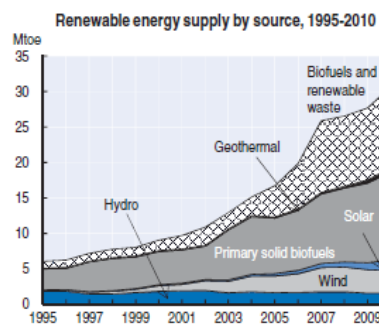
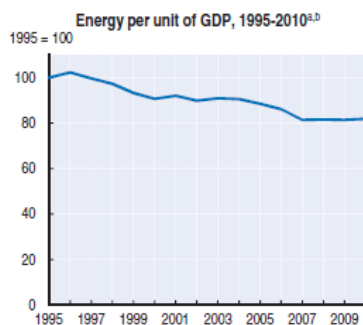


Figure 1.2. Energy intensity and renewable energy sources



Nitrogen surplus,¹ 1990-2008

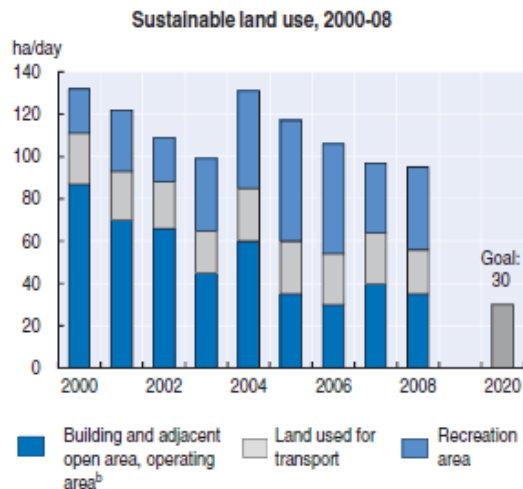
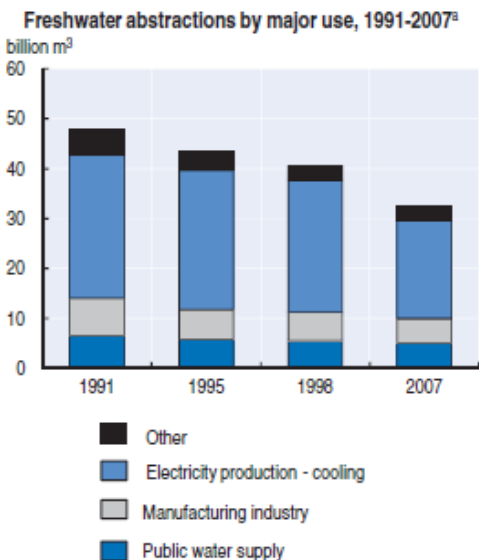


a) Total primary energy supply. Excludes international marine and aviation bunkers.

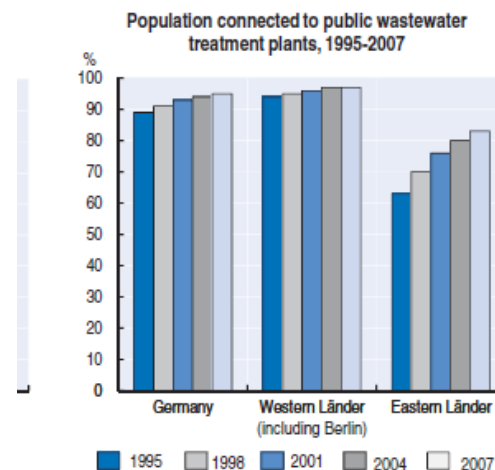
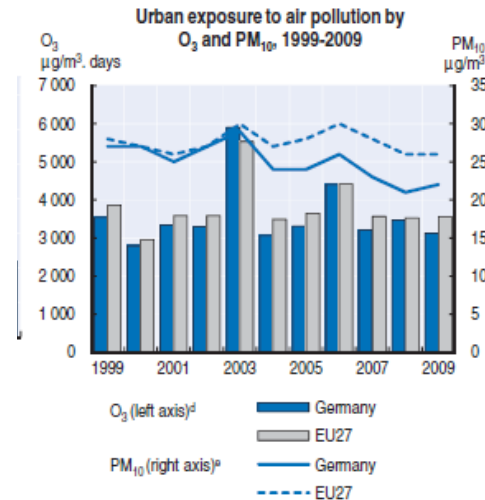
b) GDP at 2005 prices and purchasing power parities.

Source: OECD-IEA (2011), *Energy Balances of OECD Countries*; OECD (2010), *OECD Economic Outlook No. 48*.

The natural asset base



The environmental quality of life



Towards green growth

Pollution abatement and control expenditure by sector 2000 and 2008

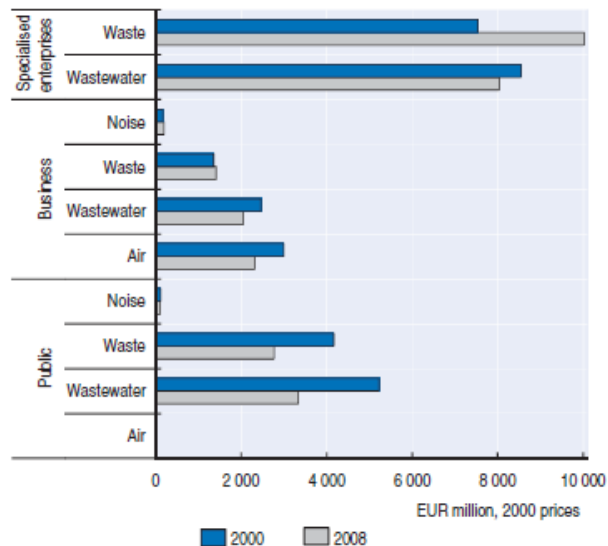
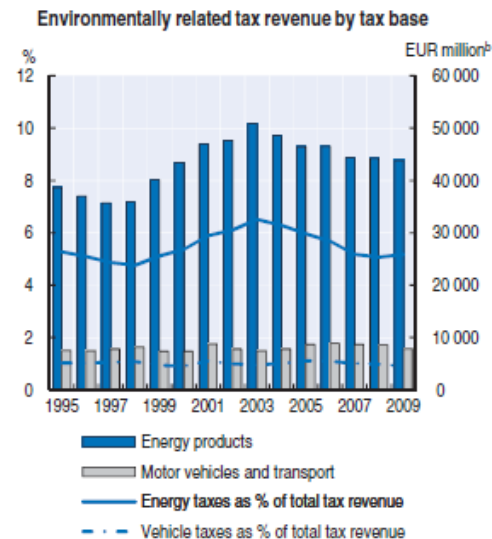
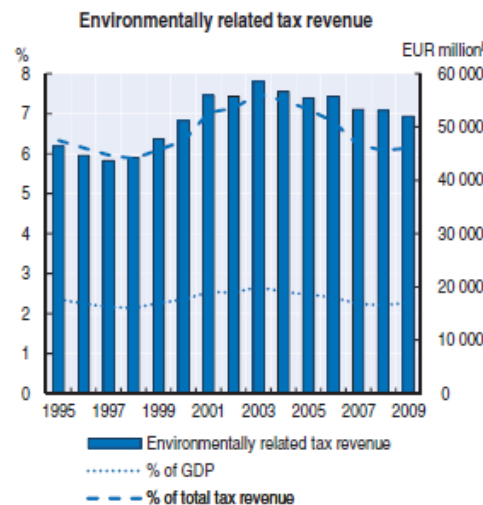
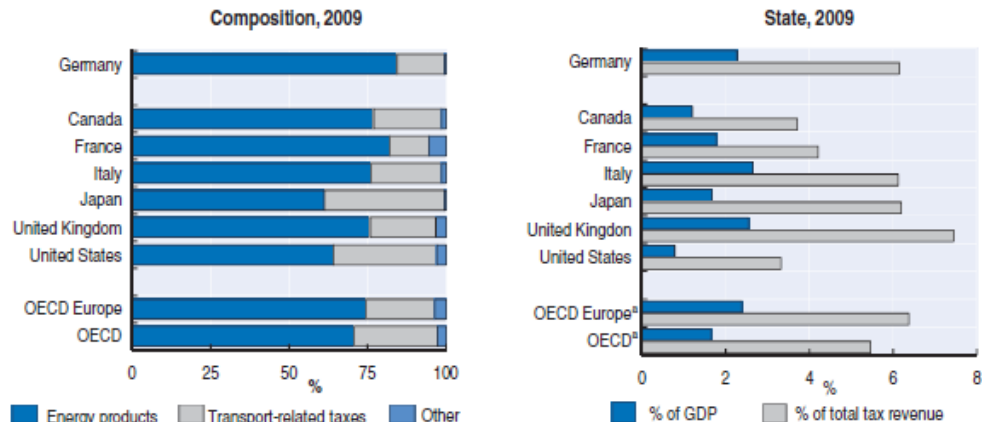


Figure 3.1. Environmentally related taxes

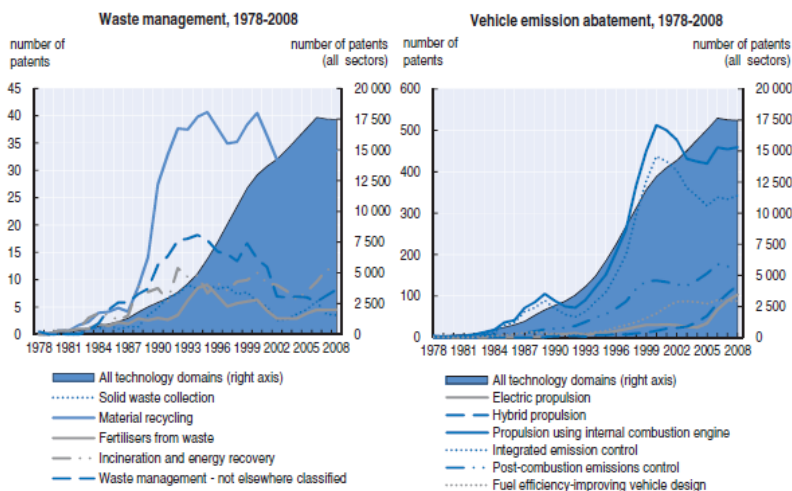


Green Growth Indicators in practice

OECD Environmental performance reviews: Germany 2012

Focus on innovation

Figure 4.1. Patenting activity in selected environment-related technologies^{a, b}



Public R&D spending on renewable energy sources,^a 1980s, 1990s and 2000s

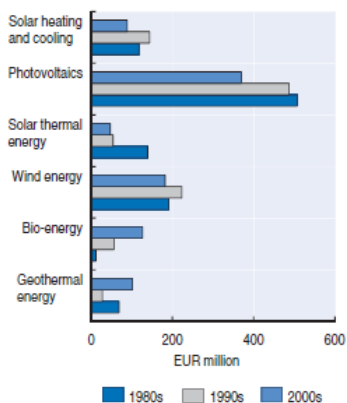
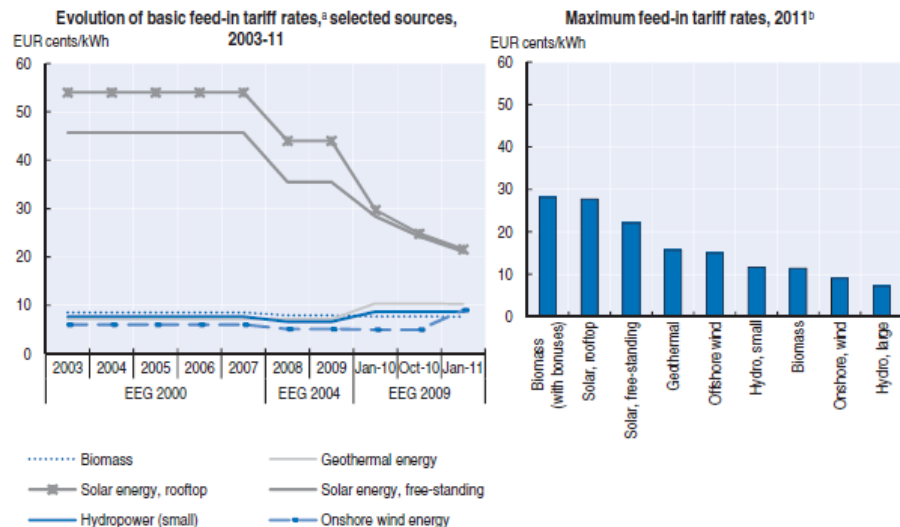
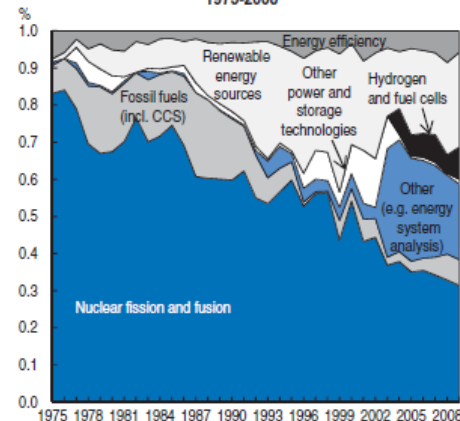


Figure 4.2. Feed-in tariffs for renewable sources



Share of total energy technology R&D, public funds 1975-2008



Delivering on green growth

International cooperation for green growth

- **GG Knowledge Platform (GGGI, WB, UNEP, OECD)**

- enhance and expand efforts to identify and address major knowledge gaps
- help countries design and implement green growth policy



- **OECD contribution to Rio+20**

- Environmental Outlook to 2050
- Green Growth Strategy and indicators



- **OECD cooperation and partnerships on indicators and measurement frameworks**

- UNEP
- UNSD
- UNIDO
- UNESCWA
- World Bank
- EU, ...

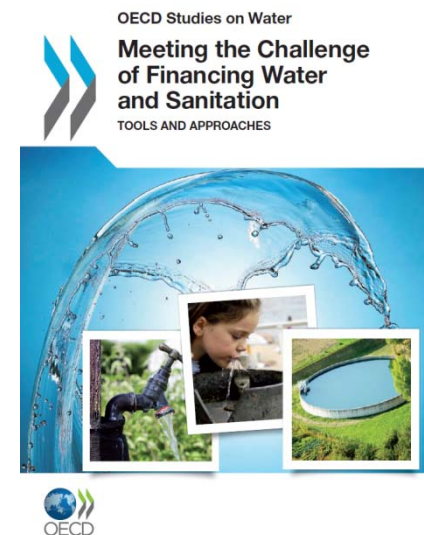
For more information, see
www.oecd.org/greengrowth
www.oecd.org/greengrowth/indicators

- **Recommendations to help governments identify the policies that achieve the most efficient shift to greener growth, focusing on:**
 - Green jobs and social aspects
 - Fiscal consolidation , green taxes and regulatory approaches
 - Industrial restructuring and renewal
 - Green technologies , innovation
 - Environmental and natural resource management
 - Application of measurement framework and indicators
- **Issue-specific and sector-specific studies and recommendations**
- **Policy guidance tailored to country circumstances**
 - Peer reviews
 - Co-operation with emerging and developing economies

Delivering on green growth

OECD Sectoral and Thematic Green Growth Studies

- **Green Growth Reports for Emerging Economies**
- **Green Growth and Developing Countries**
- **Food and Agriculture**
- **Energy (OECD/IEA)**
- **Biodiversity**
- **Water**
- **Development**
- **Innovation and technology transfer**
- **Freedom of investment for green growth**
- **Green Financing**
- **Green Cities**
- **Environmental regulations and growth**
- **Job potential of a shift towards a low-carbon economy**



Delivering on green growth

GG in OECD national and multilateral policy surveillance

- **Country peer reviews and studies**

- Economic Surveys
- Environmental Performance Reviews
- Innovation Reviews
- Investment Policy Reviews

- **Other OECD Strategies**

- Jobs, Skills, Innovation
- Development

- **Greening Growth and Going for Growth**

- Analyse the side effects of growth-enhancing policy priorities on the environment (and on income distribution).
- Analyse the links between environmental policies and outcomes and the effects of environmental policies on growth

