



# Green Growth Strategy

## OECD Council Working Party on Shipbuilding – Workshop on Green Growth in Shipbuilding

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Dirk Pilat  
Member of the Core Team, OECD Green Growth Strategy

# The Green Growth Strategy

- ***Multi-disciplinary inter-governmental process***, involving 25 OECD Committees: delegates from Ministries of Finance, Economy, Environment, Agriculture, Development Co-operation, Industry, etc.
- Our work starts with the premise is that there is ***no necessary conflict*** between pursuing economic growth and doing so in a green way.
  - We need ***growth*** and it ***needs to be green***.
- ***Key deliverables*** at the 2011 Ministerial meeting:
  - Synthesis Report: *Towards Green Growth*
  - Toolkit: *Tools for delivering on green growth*
  - Indicators Report: *Towards Green Growth: Measuring Progress – OECD Indicators*

# 'Towards Green Growth': structure (1)

## The need for green growth strategies

- Reframing growth
- Green growth dividends: fostering new markets and activities; raising resource efficiency
- Systemic risks and imbalances

## Policy framework for green growth

- Policy design considering cross-country differences
- Market instruments: taxes and permits, subsidies
- Regulations and the regulatory environment
- Measures for enabling changes in consumer behaviour
- Innovation policies
- Infrastructure investments: energy, transport, water
- Institutional and governance arrangements

## Promoting the transition

- Ensure smooth and just labour market transition
- Address distributional concerns of firms and households
- Promote international co-operation for green growth

Greener growth

## 'Towards Green Growth': structure (2)

### Measuring progress

- Measurement framework and principles
- Emerging messages: relative but not absolute decoupling
- Other measurement issues, *e.g.* availability of internationally comparable data

### Delivering on green growth

- Mainstream green growth policies in government policies, *e.g.* green growth toolkits
- Identify country-specific policy priorities, *e.g.* country reviews, GG reports for emerging and developing economies
- Issue-specific and sector-specific studies, *e.g.* food and agriculture, energy sector, water, etc

Greener growth

# What is green growth?

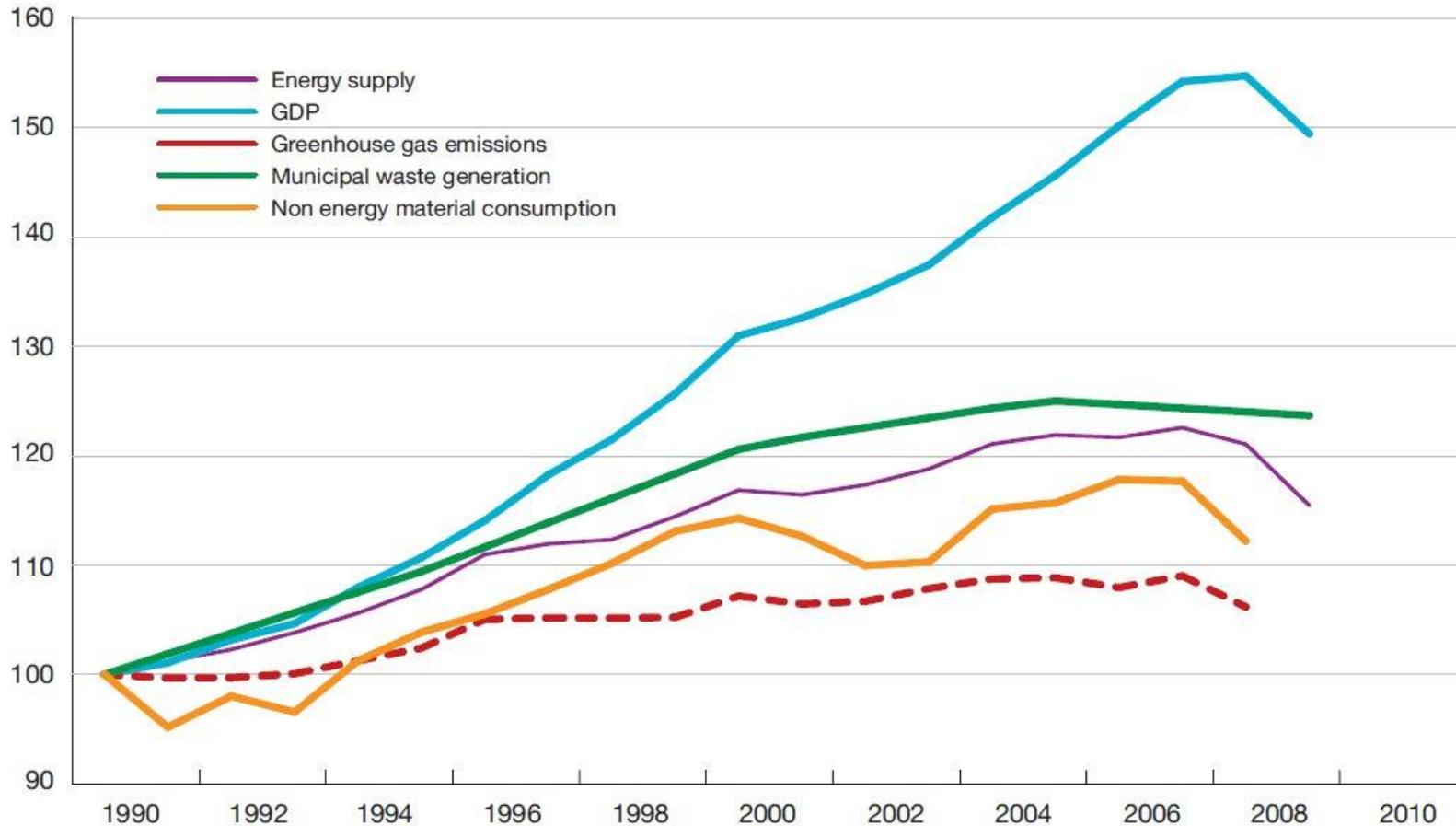
*Green growth means fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. It catalyses investment and innovation which will underpin sustained growth and give rise to new economic opportunities.*

- Green Growth and Sustainable Development:
  - Green growth as a **subset** of sustainable development: narrower; an **operational** policy framework to help achieve concrete, measurable progress
  - Green growth focus on fostering innovation, investment and competition that can give rise to **new sources of economic growth**
  - Green growth strategies need to pay attention to social issues and equity concerns as a result of greening the economy

# What is green growth?

## Decoupling trends, OECD

Index, 1990 = 100



Source: OECD and IEA environmental data.

## What are the sources of green growth?

Green growth can **open up new sources of growth through:**

- Enhanced productivity
- Innovation
- New markets
- Confidence
- Stability

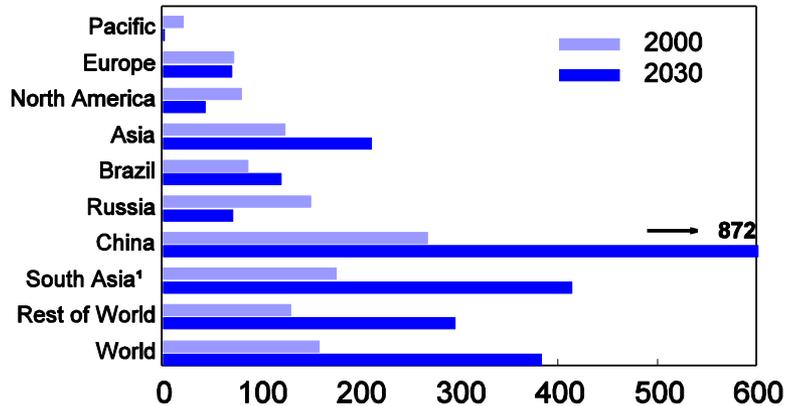
and also **reduce risks of negative shocks to growth from:**

- Bottlenecks from resource scarcity
- Imbalances in natural systems

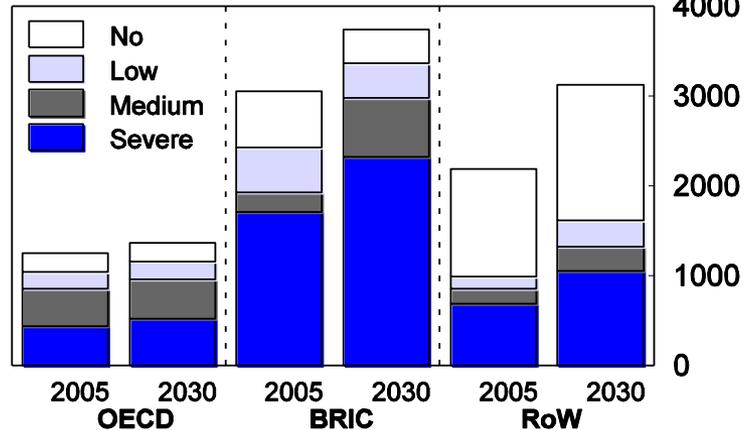
# Green growth is more than addressing climate change

Air pollution, water stress, biodiversity loss, GHG emissions

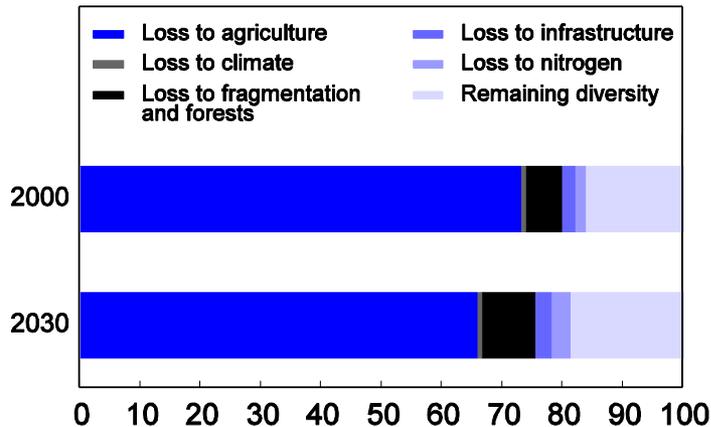
Premature death from PM10 air pollution



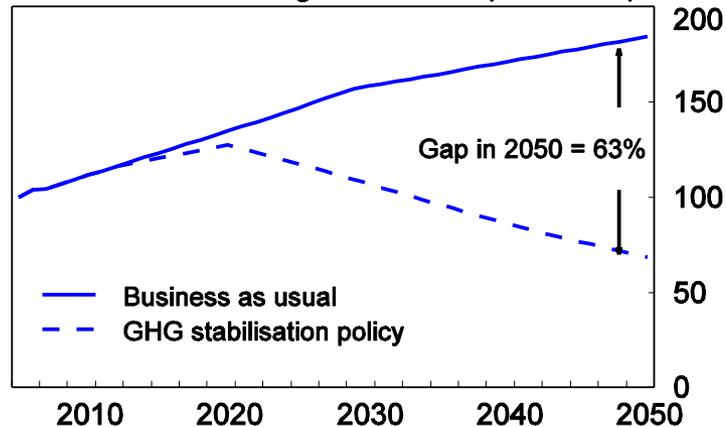
Millions of people living under severe water stress



World threats on biodiversity



World's Greenhouse gas emissions (2005 = 100)



Source: OECD (2008), Environmental Outlook to 2030, and OECD (2009), The Economics of Climate Change Mitigation: Policies and Options for Global Action beyond 2012, OECD, Paris.

# The Green Growth policy toolkit (1)

## General points

- Governments need to draw from a **wide menu of policies**
- Involve a **mix of policy instruments** which differ across countries
- Central element is to **put a price** on pollution or on the over-exploitation of scarce natural resources

## Criteria for choosing the policy mix

- Cost-effectiveness
- Effectiveness in stimulating innovation and technology adoption
- Effectiveness in ensuring adoption and compliance incentives

## 1. Policies that mutually reinforce green and growth:

- Policies to encourage innovation including adequate IPRs
- Labour and product market policies facilitating entry/exit/reallocation
- Growth conducive tax structures
- Openness to trade and investment

## 2. Policies specifically aimed at greening growth:

Price-based instruments

- Environmental taxation, emission trading systems, emission credit systems, subsidies

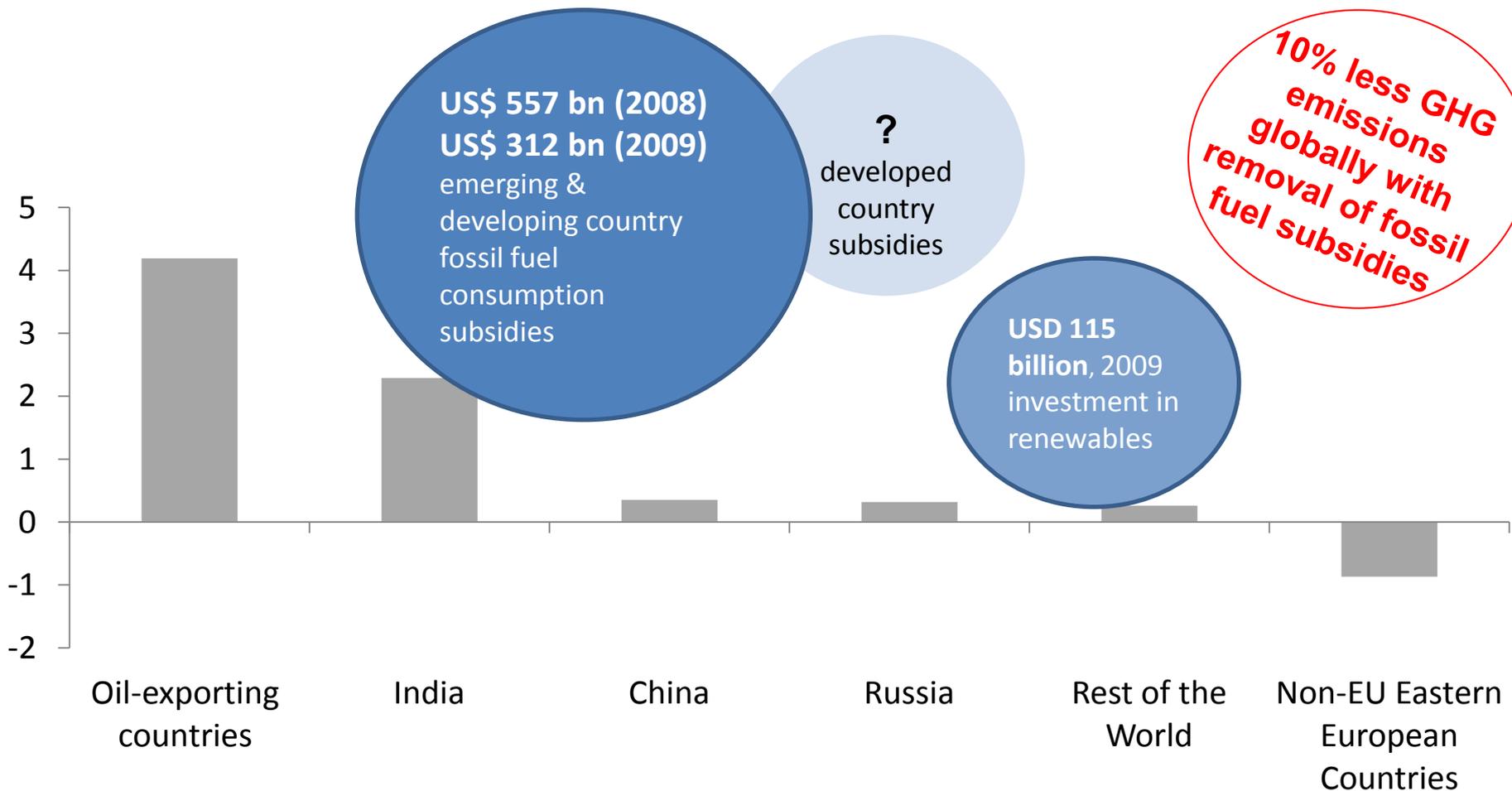
Non-market instruments

- Regulation, standards, active technology support, information-based measures, voluntary agreements



# Fossil fuel subsidies: subsidising CO<sub>2</sub> emissions

**Income gains from unilateral fossil fuel subsidy removal** (% change in household income vs BAU)

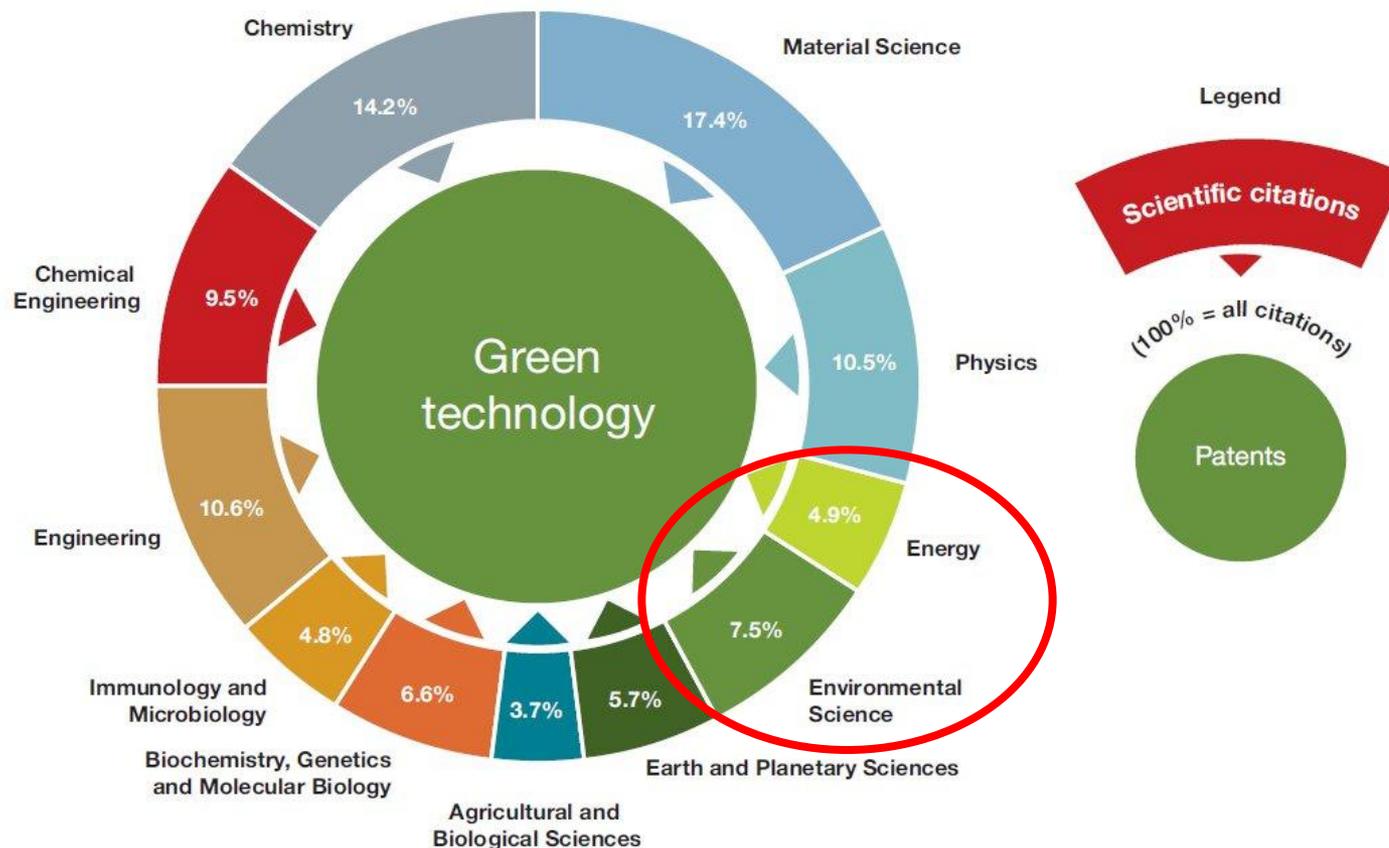


**Source:** OECD analysis, based on IEA data

# Innovation in unexpected places

## The innovation-science link in selected green technologies

Patent-science link via citations, 2000-07



Source: OECD (2010), *Measuring Innovation – A New Perspective*, based on Scopus Custom Data, Elsevier, July 2009; OECD, Patent Database, January 2010; and EPO, Worldwide Patent Statistical Database, September 2009.

## How will green growth affect employment?

Investing in green activities will create many jobs:

- e.g. up to 20 million jobs could be created worldwide by 2030 in renewable energy generation and distribution ((UNEP/ILO/IOE/ITUC)
- job losses likely to be concentrated on a small portion of the total workforce

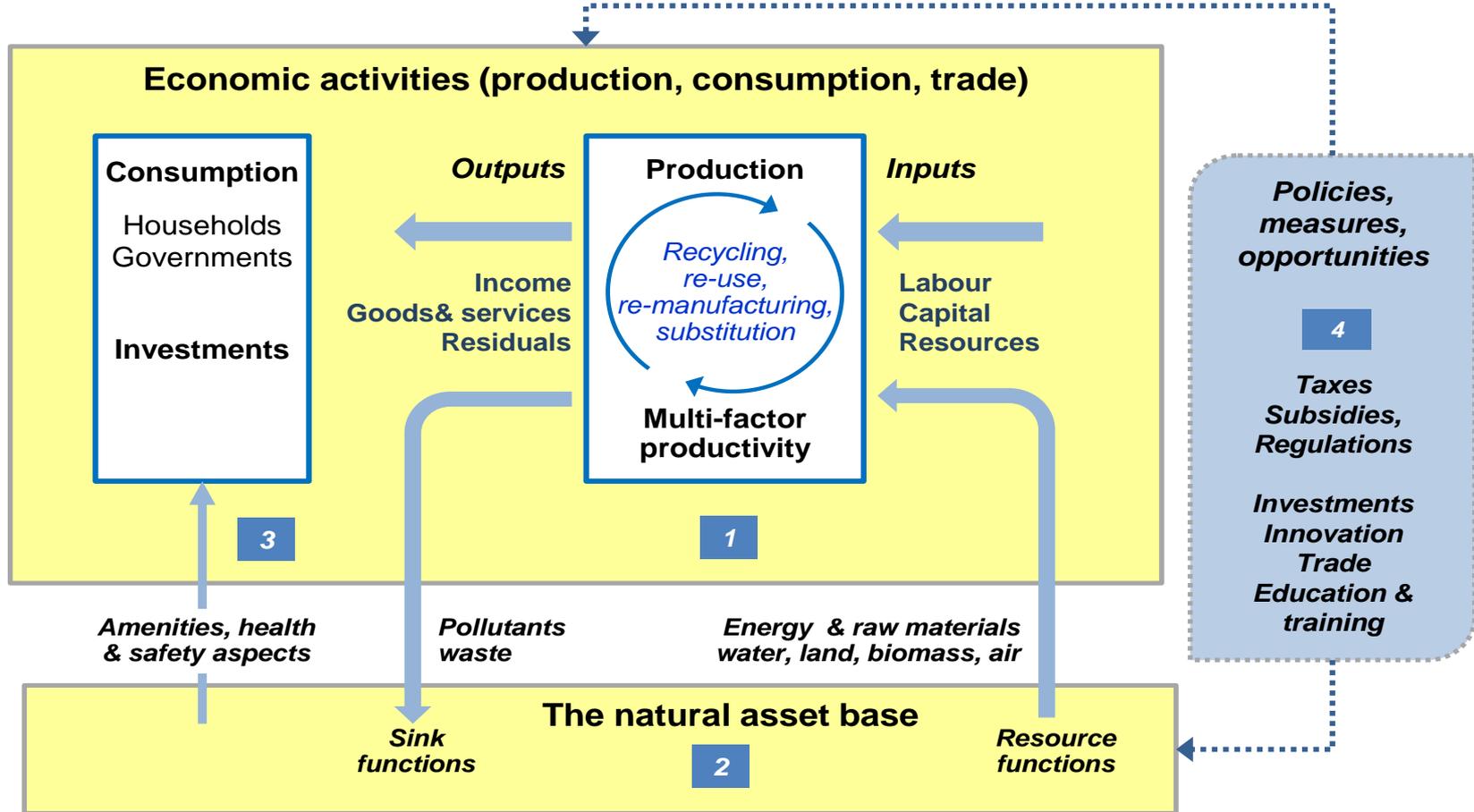
The **net impact** is likely to be limited in the long-run

- significant GHG emissions reductions can be achieved with only limited effects on the pace of employment growth (OECD simulations)
- outcomes can improve if revenues from carbon pricing are used to promote labour demand:
  - 7.5% increase in OECD employment over 2013-2030, against 6.5% in absence of mitigation actions; and this, without any loss of purchasing power for workers

### 3 priority policy areas to promote a smooth and just transition

1. Strong skills development system and active labour market programmes  
⇒ to facilitate a quick reintegration of jobseekers into employment
2. Moderate employment protection and strong product market competition  
⇒ to support vigorous job creation as new green competitive niches emerge
3. Combine policies that increase the adaptive capacity of labour markets with flanking measures (*e.g.* unemployment insurance and in-work benefits) ⇒ to assure that dynamism is not achieved at the cost of workers' insecurity or inequality

# A framework for green growth indicators



## The socio-economic context and characteristics of growth

- 1: Indicators monitoring environmental and resource productivity
- 2: Indicators monitoring the natural asset base
- 3: Indicators monitoring the environmental quality of life
- 4: indicators monitoring economic opportunities and policy responses

# Directions for future work

## Timeline

## Deliverables

### 2011 MCM

- ❖ Green Growth Strategy Synthesis Report
- ❖ Green Growth Indicators Report

### 2011/2012

- ❖ Green growth monitoring work: indicators, country surveys
- ❖ Green Growth Reports for Emerging Economies
- ❖ Report on Green Growth and Developing Countries
- ❖ *A Green Growth Strategy for Food and Agriculture*
- ❖ Joint IEA/OECD Green Growth Study for Energy
- ❖ Monitoring green investment protectionism concerns
- ❖ Report on Green Innovation
- ❖ Green Growth and Biodiversity
- ❖ Green Cities Programme
- ❖ Project on Green Financing
- ❖ Green Growth and Water
- ❖ Environmental regulations and growth
- ❖ Green fiscal revenue
- ❖ Job potential of a shift towards a low-carbon economy
- ❖ Report on greening industry