Planet RE-Think: The role of sustainable consumption and production in an inclusive green economy

Prof. Jacqueline McGlade, Executive Director, EEA
Challenges
We face complex interlinked challenges

These links highlight the necessity of an integrated response, ensuring coherent management of natural capital across sectors and policy domains.

**Environment policy priority areas**
- Climate change
- Nature and biodiversity
- Natural resources and waste
- Environment, health and quality of life
Green Growth -- more growth in Quantity?

From less is more → to do more with less

RESOURCE EFFICIENCY

20th Century

Population 4X

Global freshwater withdrawals 3X

Economic Output 22X

Fossil fuel consumption 14X

OECD

P x A x T = width times height times length of three boxes representing human impact in 1900, 1950 and 2011.
Our diagnosis: this is not sustainable
Solution: An inclusive green economy
A green economy

An economy in which policies and innovations enable society to use resources efficiently, enhancing human well-being in an inclusive manner, while maintaining the natural systems that sustain us.
Managing natural capital and ecosystem services: improving resource efficiency and ensure resilience

**Ecosystem**
(natural capital)

*goal: ensure ecosystem resilience*

**Economy**
(produced capital)

*goal: improve resource efficiency*

**Human well-being**
(social and human capital)

*goal: enhance social equity and fair burden-sharing*

---

European Environment Agency
An (indicative) assessment progress towards improving resource efficiency

<table>
<thead>
<tr>
<th>Environmental issue</th>
<th>EEA 38 - trend?</th>
<th>EU 27 target / objective - which?</th>
<th>EU 27 - on track?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transboundary air pollution (NOₓ, NMVOC, SO₂, NH₃)</td>
<td>✈</td>
<td>To limit emissions of acidifying, and eutrophying pollutants</td>
<td>☐</td>
</tr>
<tr>
<td>Greenhouse gas emissions</td>
<td>✈</td>
<td>To reduce greenhouse gas emissions by 20% by 2020</td>
<td>☑</td>
</tr>
<tr>
<td>Air pollution</td>
<td>✈</td>
<td>To limit emissions of ozone precursor pollutants</td>
<td>☐</td>
</tr>
<tr>
<td>Maritime transport emissions</td>
<td>✈</td>
<td>To reduce greenhouse gas emissions</td>
<td>☐</td>
</tr>
<tr>
<td>Water use</td>
<td>✈</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Decoupling and recycling (decouple resource use from economic growth)</td>
<td>✈</td>
<td>To decouple resource use from economic growth; to move towards a recycling society</td>
<td>☐</td>
</tr>
</tbody>
</table>
## An (indicative) assessment of progress towards ensuring ecological resilience

<table>
<thead>
<tr>
<th>Environmental issue</th>
<th>EEA 38 - trend?</th>
<th>EU 27 target / objective - which?</th>
<th>EU 27 - on track?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation status</td>
<td>➡</td>
<td>To achieve favourable conservation status, set up Natura 2000 network</td>
<td>☐</td>
</tr>
<tr>
<td>(safeguard EU’s most important habitats and species)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global mean temperature change</td>
<td>➡</td>
<td>To limit increases to below 2°C globally</td>
<td>☒</td>
</tr>
<tr>
<td>Air quality in urban areas</td>
<td>➡</td>
<td>To attain levels of air quality that do not give rise to negative health impacts</td>
<td>☒</td>
</tr>
<tr>
<td>(particulate matter and ozone)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biodiversity loss</td>
<td>➡</td>
<td>To reverse negative species abundance trends</td>
<td>☒</td>
</tr>
<tr>
<td>(marine species and habitats)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water stress</td>
<td>➡</td>
<td>To achieve good quantitative status of water bodies</td>
<td>☐</td>
</tr>
<tr>
<td>(water exploitation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecological footprint</td>
<td>➡</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>(footprint versus biocapacity)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

European Environment Agency
By and large, European environmental policies appear to have had a clearer impact on improving resource efficiency than on maintaining ecosystem resilience.

Environmental indicators highlight that improving resource efficiency remains necessary, but in itself may not be sufficient to ensure a sustainable natural environment.

In a green economy policy context, there would be value in considering objectives and targets that more explicitly recognise the links between resource efficiency, ecosystem resilience and human well-being.
Material resources productivity
Trends in the use of material resources in Europe

Index 1970 = 100

Index 1992 = 100

- GDP
- Population
- DMC
- Material productivity

European Environment Agency
Growth in the productivity of labour, energy and materials

Source: EEA, 2012 update of SOER thematic assessment on material resources and waste
Consumption imbalances
EU27 imports and exports of materials

European Union (EU-27) -> Rest of the world (ROW)
- Biomass (141 million tonnes)
- Manufactures (212 million tonnes)
- Fuels/mining products (215 million tonnes)

EU-27 imports (2011)
- Biomass (172 million tonnes)
- Manufactures (183 million tonnes)
- Fuels/mining products (1,274 million tonnes)

Total trade from EU-27 to ROW
- in 1999: 397 million tonnes
- in 2008: 536 million tonnes
- in 2011: 568 million tonnes

Total trade from ROW to EU-27
- in 1999: 1,340 million tonnes
- in 2008: 1,798 million tonnes
- in 2011: 1,629 million tonnes
Share of imports in EU-27 materials consumption for selected materials
Europeans consume...

17 % of world meat output

13 % of world energy output

10 % of world apparel output

Sources: U.S. Census Bureau; Enerdata; FAO
Europe’s footprint

Global hectares per person

- Ecological footprint (ha/ per person)
- Biocapacity (ha/ per person)

Source: EEA, based on data from the Global Footprint Network
Food and drink, housing and mobility create the greatest pressures on the environment: the European picture

Eating and drinking
- 16% of GHG emissions
- 34% of material use

Housing and infrastructures
- 31% of GHG emissions
- 22% of material use

Mobility
- 26% of GHG emissions
- 14% of material use

Source: EEA
EEA analysis of consumption and the environment

CONSUMPTION AND THE ENVIRONMENT — 2012 UPDATE

THE EUROPEAN ENVIRONMENT
STATE AND OUTLOOK 2010
Waste: We need to use waste as a resource
Development of municipal waste management in the EU-27
Employment in recycling activities in Europe is growing

Data source: Eurostat
How much can recycling contribute to consumption of materials in Europe?

Source: EEA, based on Eurostat data
Better waste management reduces GHG emissions

- Scenario 1 (2020): Business-as-usual
- Scenario 2 (2020): Full implementation of the EU Landfill Directive
- Scenario 3 (2020): Hypothetical landfill ban

Million tonnes CO₂-equivalent

Avoided net emissions 1995–2008
Avoided net emissions 2008–2020
Economic instruments and Environmental tax reform: important means on the way to an inclusive green economy
Market prices have provided misleading signals for investment and innovation.
Trend in the share of environmental tax revenues-GDP

We need to go beyond GDP in measuring progress of our economies and our societies
GDP counts depletion of our resources as a gain

This process increases GDP!
• Stiglitz-Fitoussi-Sen Commission (2009) and EC’s ‘Beyond GDP’ initiative indicates that it is feasible to measure progress across the economic, social and environmental domains by using a basket of interlinked, coherent indicators.
Beyond GDP - progress

- GPI - genuine progress indicator

Source: http://www.beyond-gdp.eu/
Social and Cultural Capital
Human Capital
Imaginative capital
Reduces family fuel consumption by 30 %
Thank you!

Prof. Jacqueline McGlade
Executive Director, EEA