

Resource efficiency and sustainability

The policy approach of Europe 2020 Strategy

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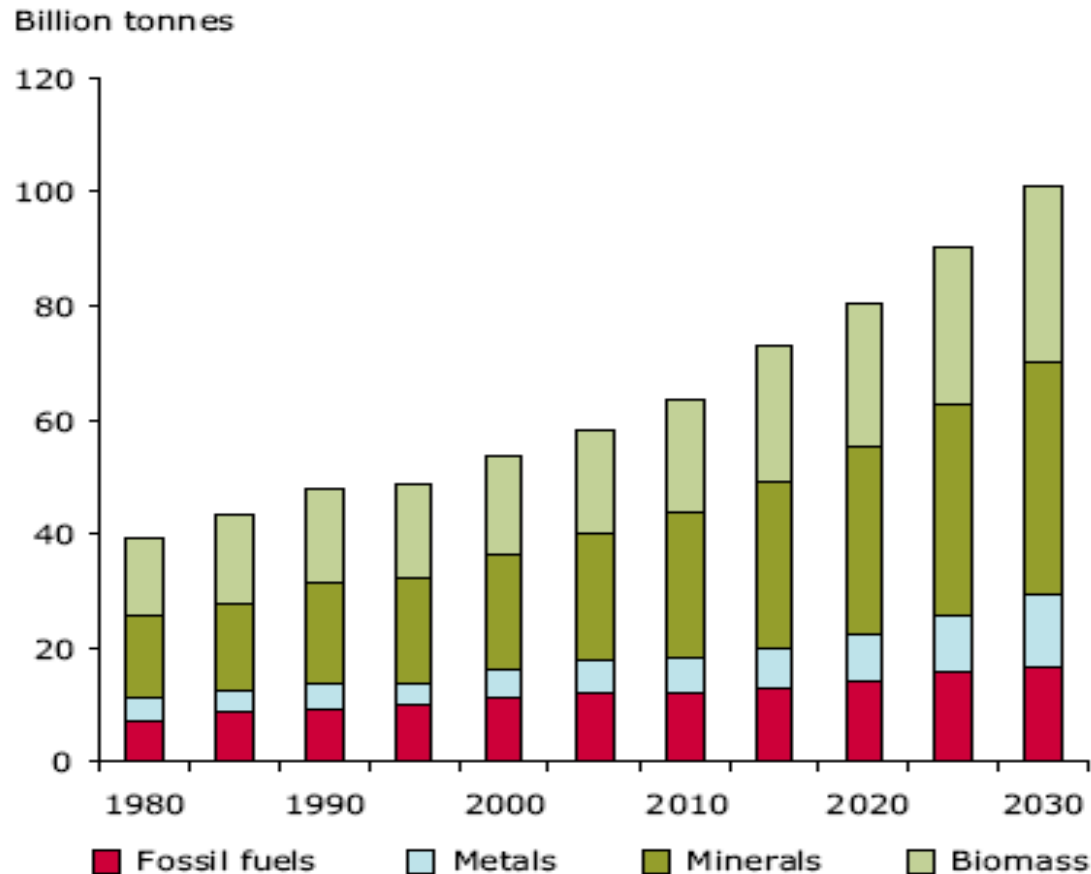
Is our resource use sustainable?

Global resource use is increasing

- In the 20th century:
 - population increased 4 times,
 - economic output - 23 times,
 - fossil fuel use - 12 times,
 - water use - 9 times,
 - ores/minerals extraction - 23 times
- With population expected to exceed 9 billion by 2050, under “business as usual”:
 - global demand for food to increase by 70% by 2050
 - **global demand for energy to rise by 80% until 2050;**
 - **1.8 billion people to live in water-scarce regions in 2025.**

Natural resources

Global resources extraction 1980-2030



Source: SERI, in: EEA, State of Environment Report (SOER) 2010

Intensified global competition for resources

- Europe's economy depends on imported raw materials
- Share of imports in EU consumption: 83% of oil, 47% of natural gas, 59% of coal, 85% of iron ore and bauxite, 100% of some rare metals
- Risk for EU economy due to
 - price rises and volatility,
 - risk of supply interruption
- Global demand for resources likely to rise – especially demand from BRIC and other emerging economies,
- Political risk - fossil fuel and rare earths reserves concentrated in a small number of countries.

Overexploitation of resources - consequences

- **Overexploitation of natural resources leads to irreversible damages. Some consequences well recognized:**
 - biodiversity loss,
 - climate change,
 - land conversion (deforestation, urbanisation),
 - water scarcities

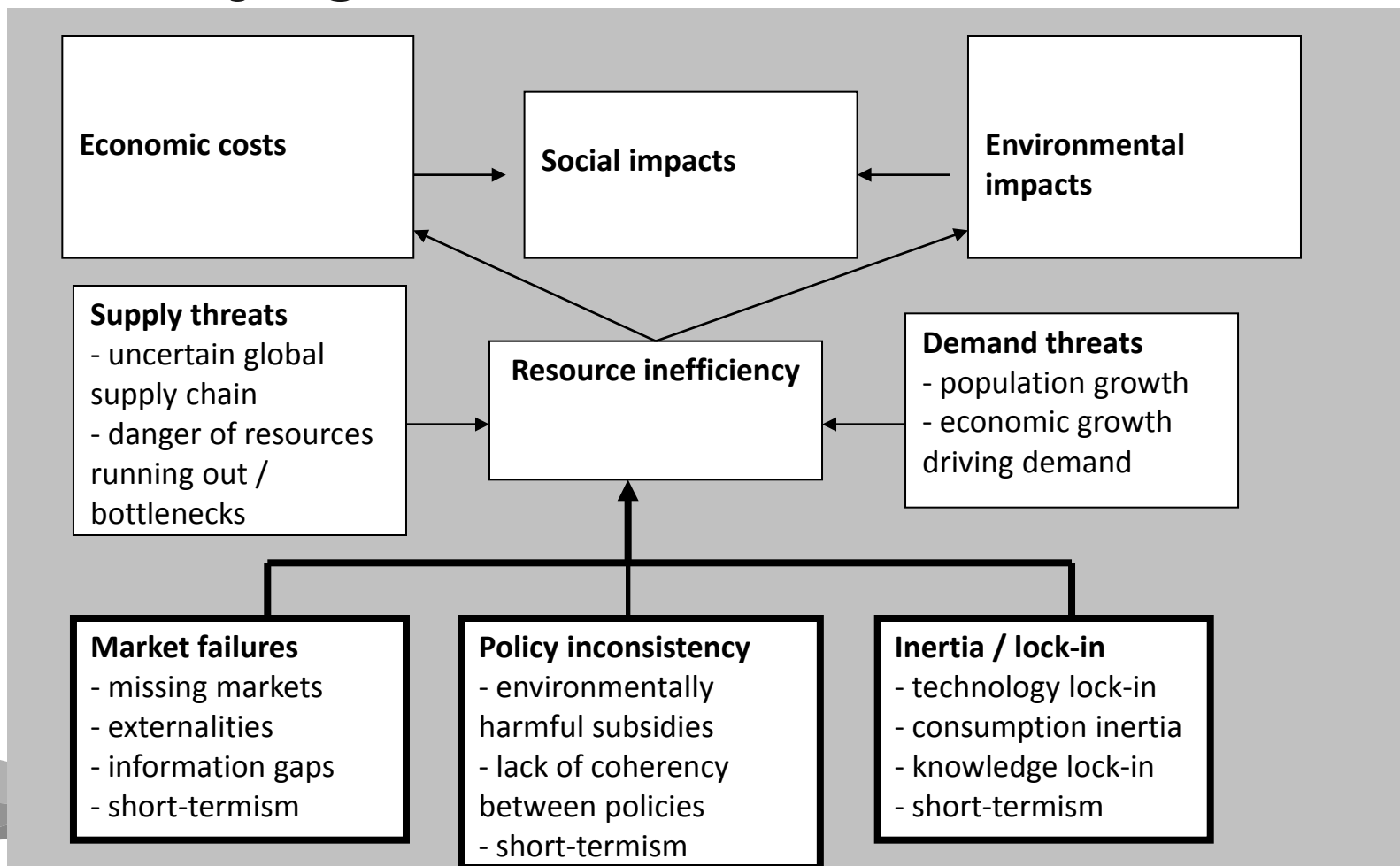
- **Other consequences still uncertain:**
 - some resources may be nearing the point of exhaustion
 - we prospect for resources in new, fragile environment – Arctic, ocean floor, tropical rainforest

What is Resource Efficiency and why is it needed?

What is Resource Efficiency?

- **Resource efficiency:** achieving more with less whilst using those resources in a sustainable way (within the planet's long-term boundaries).
- So it aims at increasing economic value through
 - the best use of resources over their life cycle, and at the same time
 - making sure that environmental impacts are minimised.
- **Resources** - all inputs into our economy - metals, minerals, fuels, fish, timber, water, soil, clean air, biomass, biodiversity and land and sea.

Underlying barriers to transition to be tackled



Opportunities from resource efficiency (1)

- **Growth and job creation:** reduced costs for companies and households, improved productivity supporting new jobs, new business opportunities,
 - UK business can save £23 bn per year from resource efficiency measures that are no-cost or low cost, using raw materials more efficiently and generating less waste
 - EU 20% energy efficiency target to cut households' bills by €1000 per year and create up to 2 million new jobs
- **Competitiveness:** opportunities to gain market shares through clean technology investment; 'first mover advantage' on global markets;
 - 75% of large global corporations project their clean technology spending to rise in next 5 years
- **Fiscal benefits:** revenue from resource use rather than labour can help balance public finances without negatively affecting competitiveness, while significantly promoting employment.

Opportunities from resource efficiency (2)

- **Economic resilience:** reduced dependency on imported resources, reduced risk of economic shocks or supply constraints.
- **Environmental resilience:** strengthened resilience to the effects of climate change and risks related to food, water and energy supply. Reduced environmental impacts of economic activity.
 - Water efficiency can be improved by 40% through technological improvements. In FR and ES 34% of water is lost, 7% in DK
- **Quality of life and human health** improved due to cleaner air and water, better food, preserved natural habitats etc.
- **Global stability:** reduced risk of conflicts related to natural resources (e.g. fuels, food, water), and migration.

A Resource Efficient Economy must:

- **Save resources, taking existing opportunities for efficiency**
 - Some EU economies are 16 times more efficient than others
- **Reduce – dematerialize ways to meet people’s needs**
- **Substitute, for alternatives with lower resource use over the life cycle**
- **Value resources correctly in policy and business decisions**
- **Recycle and reuse, for a circular economy**

Addressing the challenge: Resource Efficiency in Europe 2020



Addressing the challenge: resource efficiency in Europe 2020 strategy

- Europe 2020 Strategy: Resource efficient Europe as a flagship initiative under sustainable growth;
- Communication "A resource-efficient Europe – Flagship initiative under Europe 2020 Strategy" of 26 January 2011;
- Initiatives announced in this communication;
- Roadmap to a resource-efficient Europe - under preparation.

Resource-efficient Europe communication (1)

- Communication “A resource-efficient Europe” – Flagship initiative” of January 2011
- Recognises fundamental importance of natural resources for the EU and global economy; no option to continue current patterns of resource use
- Broad scope: climate change, energy, transport, industry, raw materials, agriculture, fisheries, environment and regional development
- Key goals:
 - ➔ boost economic performance while reducing resource use;
 - ➔ create new opportunities for growth, innovation and competitiveness;
 - ➔ ensure security of supply of essential resources;
 - ➔ fight against climate change and limit the environmental impacts of resource use
- Medium-/long-term framework for policies to 2020 / 2050

Resource-efficient economy communication (2)

- Coordinated action in a wide range of policy areas to enjoy the benefits of resource-efficient economy
- Approach that optimises synergies and addresses trade-offs
- Technological improvements, transition in energy, industrial, agricultural and transport systems and consumer behaviour needed; key role for research and innovation
- ‘Get prices right’ to reveal transparently to the consumers the true costs for the society
- Close coordination with other Europe 2020 flagships
- Global cooperation: multilateral (e.g. Rio+20 summit) and bilateral / regional with international partners

Initiatives for delivering resource efficiency

- Long term (horizon 2050):
 - Low Carbon Economy roadmap
 - White Paper on the Future of Transport
 - Energy strategy
- Medium-term (horizon 2020)
 - Energy Efficiency Plan;
 - 2020 EU biodiversity strategy;
 - Commodity markets and raw materials;
 - Reforms of agricultural, fisheries, cohesion policy proposals regional, energy infrastructure and TEN-T policies
 - More proposals in 2012 and beyond, including on 'circular economy' (recycling), water and air
- Long and medium term: Roadmap for a Resource Efficient Europe

Rio+20 communication (1)

- Communication “Rio+20: towards the green economy and better governance” of 20 June 2011
- Commission's view on potential concrete outcome for Rio+20 with two topics: green economy and SD international governance
- Proposals on "what, how and who" for a transition to a green economy
 - ➔ “What” - Sustainable management of key resources: water, renewable energy, marine, ecosystems, agriculture, forests, waste → stronger international partnerships based on existing initiatives
 - ➔ “How” - Market and regulatory instruments: MBIs, removing EHS, mobilising financial resources, skills and green jobs + indicators of progress, other than GDP;
 - ➔ “Who” - Improving governance: reinforcing the international environmental governance structures (e.g. upgrading UNEP into an UN agency)

Rio+20 communication (2)

- Proposed Rio+20 outputs:
ambitious political document + "Green Economy Roadmap"+ toolbox of best practices + monitoring mechanism
- The Communication as a basis for dialogue with MS, EU institutions and civil society on a consolidated EU position to Rio+20
- Section on SD in the EU:
 - Progress on SDS implementation – but many challenges exist;
 - Europe 2020 and resource efficiency as a tool to deliver SD;
 - Rio+20 to inspire future EU actions on SD

The Roadmap to a Resource Efficient Europe

Communication expected to be adopted in mid-September 2011



What will be the content of the Roadmap?

- Outline the key challenges and opportunities
- Propose a positive 2050 vision, objectives within the 2020 perspective, and priority areas for starting action
- Address key resources and functions at stake
- Tackle production, consumption and waste
- Outline necessary framework conditions
- Set governance and monitoring structures, including indicators

Policy Measures

- Actions: in specific areas as well as cross-cutting
- Use mix of instruments: existing legislation, market based instruments, voluntary schemes
- Engage the productive sector, the Member States, Regions

Governance and Monitoring

- Governance changes for co-ordination and joint policy work

How do we best do this?

- Integrate resource efficiency in the European Semester for the implementation of Europe 2020 Strategy
- Analyse EU and MS policies as part of the Annual Growth Survey exercise
- Work on defining appropriate targets on resource efficiency and related indicators, including the headline and complementary indicators

Thank you for your attention!

Follow the latest developments
in Resource Efficiency policy via:

http://ec.europa.eu/environment/resource_efficiency/

