



WWF

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Resource Efficiency Indicators

WWF response to the Commission consultation “*Options for resource efficiency indicators*”

In the context of the “Roadmap for a Resource Efficient Europe”, the European Commission has launched a Resource Efficiency Platform (EREP) composed of three working groups: “circular economy”, “setting objectives and measuring progress”, and “framework conditions for investment in resource efficiency”.

This consultation is the first result of the second multi stakeholders group. It presents a first set of indicators meant to measure resource efficiency, in an effort to move beyond GDP.

The first proposal consists in:

- A lead indicator (GDP/DMC)
- A dashboard including resource use and impact of the use of water, land, carbon and material
- Thematic indicators
- A scoreboard, including some but not all indicators

For more information on the approach suggested by the Platform, please refer to [the Consultation Paper of the European Commission](#). By Mid 2013, the Platform is meant to issue recommendations. A second set of recommendations will be issued at the end of the EREP mandate, focussing on important issues in the medium-term.

Questions from the Commission:

1) What are the key issues that need to be addressed by indicators to support resource policy?

2) Are there other indicators that we should be using to monitor the economic and environmental impacts of resource efficiency policies by 2013 and for the future?

More specifically:

a) Is the proposed lead indicator, GDP/DMC an appropriate indicator to measure resource efficiency? Are there any better alternatives that should be considered?

b) Are the appropriate indicators included in the dashboard of macro-indicators? Are there any alternatives that should be considered?

c) Are the appropriate indicators included in the third tier of thematic indicators? Are there any other indicators that should be considered?

d) Are the appropriate indicators included in the Scoreboard? Are there any other indicators that should be considered?

3) Which indicators would be best suited for potentially setting targets, by 2013 and for the future?

QUESTION 1) WHAT ARE THE KEY ISSUES THAT NEED TO BE ADDRESSED BY INDICATORS TO SUPPORT RESOURCE POLICY?

1. The need for indicators and targets in absolute not relative terms

If current global rates of resource use persist, by 2050 Europe will need the equivalent of more than two planets to sustain its consumption and production. Europe is already consuming more resources than sustainable is, so resource efficiency is not enough. It is required to move immediately to resource savings: resource use in Europe needs to decrease in absolute terms.

2. Drop or at least change the lead indicator

Resource productivity (GDP/DMC) is not a meaningful indicator to measure what is at stake. That is European overuse of resources in absolute terms. GDP/DMC could likely only reflect business as usual. Using Total Material Consumption (TMC) alone as the lead indicator would be much more relevant, but an even better approach would be to drop the lead indicator and focus on the footprint indicators of the dashboard.

3. Use footprint indicators in the dashboard

Land, water, carbon and materials indicators should be measured by their footprints in the dashboard. The footprint is the best indicator to include domestic but also international impacts of European consumption. The international aspect must not be neglected as it is very often the most problematic area.

4. Add biodiversity in the dashboard and thematic indicators

Biodiversity has been largely forgotten in the Commission's proposal. WWF recommends several indicators to include this fundamental resource.

5. Set ambitious targets to ensure a one planet economy by 2050

To respect the absolute biocapacity of Europe and of the planet, indicators should measure overshoot and targets should be set to fully implement a one planet economy – respecting the boundaries of the planet - by 2050 at the latest.

6. Integrate resource indicators and targets in all EU policies

The integration of resource indicators and targets is the only way to make them useful and effective. This implies that all major EU policy reviews should include this issue. These indicators should be integrated in the environmental impact assessment procedure and appear in the European Semester.

QUESTION 2) ARE THERE OTHER INDICATORS THAT WE SHOULD BE USING TO MONITOR THE ECONOMIC AND ENVIRONMENTAL IMPACTS OF RESOURCE EFFICIENCY POLICIES BY 2013 AND FOR THE FUTURE? MORE SPECIFICALLY:

a) Is the proposed lead indicator, gdp/dmc an appropriate indicator to measure resource efficiency? are there any better alternatives that should be considered?

The lead indicator of 'resource productivity' is not a meaningful indicator to measure what is at stake. That is European overuse of resources in absolute terms. WWF identifies four major problems with the lead indicator as proposed by the Commission:

Using the GDP does not provide any clear and useful information

If GDP increases at a quicker pace than resource consumption, then mechanically GDP/DMS increases. This would be considered as a progress. But European resource consumption could still increase in absolute terms (way beyond what is sustainable), which would be a failure. Therefore such an aggregated indicator would hide a negative trend for the absolute resource consumption of Europe – which is THE main sustainability issue. It will not provide the information that is required for decision makers to improve policies.

Using GDP/DMC may just show business as usual

Without any policy pressure, resource efficiency per euro is improving slowly (like energy efficiency) because research and development make the economy increasingly efficient. The indicator GDP/DMC will make it impossible to evaluate if the likely improvements are mere business as usual or are related to policy efforts to tackle resource inefficiency. Again, it does not provide useful information for decision makers.

DMC neglects the external dimension of EU consumption

More than 30% of the European resource-use takes place outside the EU , which is not considered in the DMC. Such an omission related to increasingly sensitive international impacts of European consumption makes the use of DMC too simplistic.

DMC neglects water, land and carbon

A microchip weights 2 grams, but its production requires 72 g of chemicals, 1,7 kg of fossil fuels, 32 litres of water and generates as many CO₂ emissions as driving 600 km with a car. Most of these impacts are Ignored by the use of DMC. It is not a relevant indicator to measure the real use of resources by the EU economy.

Drop or at least change the lead indicator

Using Total Material Consumption (TMC) as the lead indicator would be much more relevant. The Commission might consider that TMC is not yet robust enough, but one or two years would likely be enough to collect the necessary data and strengthen the use of TMC. By default, Raw Material Consumption (RMC) could potentially be used in the meantime, for a limited period of time (two years).

Better use footprint indicators in the dashboard

The 4 footprint indicators of carbon, land, water and materials are much better suited than GDP/DMC to reflect the real resource consumption of the EU economy, and provide data that would help decision makers to improve EU policies. WWF recommends to drop GDP/DMC as a lead indicator and focus instead on the dashboard indicators.

b) Are the appropriate indicators included in the dashboard of macro-indicators? Are there any alternatives that should be considered?

1. Use footprint indicators for carbon, land, water and materials

WWF supports the use of a family of footprint indicators including carbon, land, water and materials. At the high level of the dashboard, it is critical to put more emphasis on these indicators reflecting the real European consumption than on those focused on national production – which fail to address the sensitive and crucial issue of imports and exports.

This implies adding the material footprints to the dashboard (or to put Total Material Consumption - TMC- as the lead indicator).

2. Add Biodiversity as a key resource in the dashboard

Biodiversity, as the web of life around us, constitutes the basic building blocks for resilient ecosystems. A good status of biodiversity is the basic condition for these ecosystems to provide the crucial services and benefits for European citizens life, including clean air, clean water, protection against natural catastrophes, or a healthy environment to live in. This is therefore a fundamental element, and should be included in the scoreboard. WWF proposes the following indicator, which is considered the most relevant for the level of the dashboard:

- **Conservation Status of Habitats and Species of Community Importance**

As part of the implementation of the EU Habitats Directive, Member States together with the European Commission evaluate regularly the conservation status of the most important EU habitats and species. This information is publicly available and easily accessible, and provides an overall status of the EU biodiversity as a whole.

Data source: European Topic centre on Biological Diversity, European Environmental Agency.

c) Are the appropriate indicators included in the third tier of thematic indicators? Are there any other indicators that should be considered?

1. Transforming the economy

- **Add an indicator on the number of green jobs**

The economic efficiency of a society is not limited to its production of goods and services, it should be inclusive. Employment is key to the health of a society. In this respect, a new thematic indicator measuring the green jobs creation should be added.

Data source: European Commission.

- **Include well-being**

The economy must contribute to well being. In this regards, WWF would advocate for a space dedicated to indicators developed by Eurostat in the “Core sets of Well Being Drivers”.

- **Replace the heading “phasing out inefficient subsidies” by “phasing out environmental harmful subsidies”.**

Efficiency could be interpreted as the concept of Return on Investment and could produce counterproductive incentives.

2. Natural Capital and Ecosystem Services

Biodiversity and human pressure on habitats are critical elements missing in the Scoreboard. WWF invites the Commission and the Resource Efficiency Platform to review the Conference of the Parties to the Convention on Biological Diversity, 11th Meeting, Agenda item 3.3 “Further development of tools and guidance for monitoring implementation, including the use of indicators. On this basis, WWF recommends what follows:

- **Include a “Biodiversity” section**
- **Biodiversity: Add the indicator ‘Living Planet Index by 2015**
The Living Planet Index reflects changes in the health of the planet’s ecosystem by tracking population trends over 2500 vertebrate species. Much as a stock market index track, the value of a set of share, the LPI calculates the annual average rate of change for species population from 1970 to 2008, the latest date for which sufficient data is available. Further discussions are taking place about the methodology. The methodology should be robust by 2015.
- **Biodiversity: Add the indicator ‘IUCN European Red List’**
This indicator measures the state of biodiversity. The International Union for Conservation of the Nature (IUCN) and the European Commission have been working together on an initiative to assess around 6,000 European species according to IUCN regional Red Listing Guidelines. To date, European regional assessments have been completed for all mammals, reptiles, amphibians, butterflies and others, and further assessments are currently being completed. This information is publicly available and easily accessible online.
Data source: IUCN red List, European Commission.
- **Biodiversity: Add the indicator ‘Biocapacity and ecosystems services’**
This indicator measures benefits to people of ecosystems and biodiversity: the biological productivity of the biosphere. In terms of ecosystem services, biocapacity measures the capacity of natural and managed ecosystems to produce the biomass which people use, either to consume as food, timber or fibre, or to absorb carbon. Using the standard classification of ecosystem services, biocapacity is a measure of "provisioning services". Biocapacity has the advantage of bundling a group of different types of provisioning services into one indicator. Data are available for all countries and regions of the world as time-series data going back to 1961. Global biocapacity has grown steadily since the 1960s as productivity of agricultural land has increased, but biocapacity per capita has declined because biological productivity has not increased as fast as population growth. It can be broken down into agricultural, forestry and fishery products.
Data source: Global Footprint Network.
- **Biodiversity: Add the indicator ‘Protected Area coverage’**
The area of land and of sea (in total and as a percentage of a national or global territory) that is protected for biodiversity conservation is the best-established indicator of governmental efforts to alleviate pressure on biodiversity and ecosystems. The international Convention for Biodiversity (CBD) has targets for both terrestrial and marine protected areas. Where relevant the indicator can be broken down by country, region or biome to show the extent or proportion of different habitat types that are protected.
Data source: European Environmental Agency, UNEP-WCMC World Database on Protected Areas and University of Queensland, Australia/World Commission on Protected Areas.

- **Create a “Water” section including the two following indicators:**

1. “Water Fragmentation and Flow Regulation”

It is an indicator measuring a direct pressure on ecosystems. The alteration and damming of river systems for flood control, irrigation and hydro-electric power have fragmented most of the world’s large river systems to some extent. The fragmentation of river flows affects the productivity of freshwater ecosystems and causes declines in freshwater species. Data on trends in river fragmentation and flow regulation are available for the world’s major river basins.

Data source: The Nature Conservancy and Umea University, Sweden

2. Add indicator of aquatic ecosystems health

This indicator is the composite indicator of good status of water as defined by the EU Water Framework Directive for surface, groundwater, coastal and transitional water based on a number of quality elements which are monitored by Member States and reported to the European Commission. The indicator can be tracking the rate of improvement and percentage of water bodies reaching “good status”.

Data source: Member State reporting under the WFD, European Environmental Agency

3. Key sectors

Transform the “Addressing Food” section into “Addressing Food and Agriculture”.

There are more inefficiencies in Food sector than solely the consumption of meat and dairy.

- **Addressing Food and Agriculture: add the indicator ‘Area under organic farming’**

Organic farming is a farming system that has been explicitly developed to be environmentally sustainable, and is governed by clear, verifiable rules. It thus appears most suited for identifying environment-friendly farming practices compared to other types of farming.

Farming is only considered to be organic at the EU level if it complies with Council Regulation (EEC) No 2092/91 (and amendments). In this framework, organic farming is differentiated from other approaches to agricultural production by the application of regulated standards (production rules), certification procedures (compulsory inspection schemes) and a specific labelling scheme, resulting in the existence of a specific market, partially isolated from non-organic foods. This indicator may include organic aquaculture.

Data source: European Environmental Agency, Organic farming statistics (Organic centre Wales) and Agriculture statistics (Eurostat).

- **Addressing Food and Agriculture: add the indicator ‘Food waste’**

Improve the coverage of energy saving in ‘Improving buildings’

The indicator *Energy consumption per m2 for space heating* under the key sector ‘improving buildings’ is useful but as it is again expressed in relative terms, it only covers a certain dimension of the energy consumed in buildings. As such, it does not, necessarily, provide information on the overall increase or decrease of the energy consumption of the building sector.

Furthermore, indicators should be selected that are relevant to the goals set. In the case of the Resource Efficiency Roadmap, the milestone about improving the buildings is also related to a number of other issues, such as the renovation rate of the buildings, that are not covered by the indicator proposed. Thus, it will not be possible to monitor the progress towards achieving them, only using this set of indicators.

d) Are the appropriate indicators included in the Scoreboard? Are there any other indicators that should be considered?

1. Include all the indicators proposed by the Commission

It is unclear whether all indicators mentioned in the consultation paper will be integrated in the scoreboard.

Regarding thematic indicators, the indicator 'Inefficient subsidies' (i.e. "environmental harmful subsidies") present in table 3 p11, does not appear in the scoreboard. It is an important indicator that measures both the state of harmful subsidies and the efforts of governments to address them.

2. Detail key categories of materials

We recommend that the specific indicators related to the 55 categories of materials analysed in the Material Flow Accounting (MFA) methodology are released. They will be necessary to design targeted policies for specific categories of materials.

3. Integrate the resource efficiency indicators (and targets) of the Scoreboard in all EU policies

The progressive integration of resource indicators and targets in the decision making processes is the only way to make them useful and effective. It implies that all major EU policy reviews should include this issue. Otherwise, the Scoreboard risk remaining irrelevant and just becoming an administrative burden without any practical use.

The Commission should clarify how it intends to concretely use the Scoreboard in the coming years.

4. Ensure transparency for the next steps

The Commission should clarify how it intends to make the scoreboard evolve with time. A regular review should be decided to ensure that relevant improvements in data can be taken into account to provide the best possible indicators.

Additionally, regular reports will be required to analyse what the trends and changes shown by the scoreboard mean in reality, and how these trends should be reflected in policies.

QUESTION 3) WHICH INDICATORS WOULD BE BEST SUITED FOR POTENTIALLY SETTING TARGETS, BY 2013 AND FOR THE FUTURE?

1. Indicators only make sense if they can be measured against an objective

Each indicator listed in the future scoreboard should be related to a European target. It is already the case for several, but others are missing and should be set. For WWF, the starting point for setting targets must be a policy commitment that by 2050 at the latest the European economy is fully sustainable and respects the planet boundaries –then targets have to be set for the milestones 2020, 2030 and 2040. For the carbon footprint, the EU already committed to reduce its emissions by 80-95% by 2050.

2. Water, land, carbon and material footprints

Setting ambitious targets for the footprints is fundamental as it will drive a global transformation of the European economy. If targets are only set for thematic indicators, there is a risk that only niche aspects of the issue will be addressed.

3. Integrate sustainability to Water Footprint by setting local targets

Footprint targets sometimes only makes sense while considering the local availability of resource. In this regard, the Water Footprint target should be European and local, based on water basins and using the assessment of sustainability boundaries such as environmental flows. A good example of Water Footprint Indicator is the one developed by Water Footprint Network.

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