MEASURING OUR RESOURCE USE

A vital tool in creating a resource-efficient EU

Friends of the Earth

"To stay ahead, the EU needs to be quick in seizing opportunities and in anticipating and adapting to future trends."

European Commission, Consultation on the Future "EU 2020" Strategy, November 2009[1]

THE CHALLENGE – why bother measuring how much we're using?

Europe is using ever more of the world's resources, and is now more dependent on imported resources than any other global region.[2] Yet we're also throwing away over 5 billion euro's worth of valuable resources every year.

The Earth's ability to sustain humanity's increasing rate of consumption is being pushed to the limit. Europe is playing a massive role in degrading the natural environment on which we all depend.

Europe's dependence on imported resources makes it economically vulnerable, and the extraction and processing of these resources have adverse impacts on people and the environment.

The economic dangers of excessive resource use were demonstrated just before the financial crisis in 2008, when rapid growth in the global economy led to soaring prices of many commodities (including products linked to land, such as food). Europe needs to use resources far more efficiently to make our economy more resilient to fluctuations in the price and availability of resources.

There is now widespread agreement, particularly from the business community, on the need to become more resource efficient. Yet Europe doesn't measure how much resources it uses, nor does it set any targets or assess whether policies improve resource efficiency.

Friends of the Earth Europe is calling on the European Union to take the first steps to tackle this issue by ensuring that it measures resource use, and adopts policies to increase resource efficiency, such as higher recycling targets. The EU should also devise long-term targets and strategies in order to reduce our use of the world's resources.

Why is resource use important?

Natural resources are the foundation of our economy and our society. Without them neither could function. Nature provides humans with all the resources necessary for life, including:

- Land, on which we grow food and other crops that we use for building materials and energy.
- Mined materials, to extract metals or fuels.
- Water for crops, animals and humans.
- A stable climate, clean air to breathe and predictable weather conditions.

As global standards of living increase, and the population rises, we are making ever-higher demands on the planet. This is leading to competition for resources between different regions. There is also competition over uses of resources, for example whether land is used for food, fuels or biodiversity. The result of these

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Forests are being cleared for animal feed and fuel crops such as soya and oil palm

pressures is, among other things, rising prices for resources, which have a particularly serious impact on the poorest people.

Resource use: a key sustainability issue

Our consumption of natural resources includes not just the physical materials that are extracted but also the global ecosystems, services and cycles that regulate conditions on the planet. The concentration of carbon in the atmosphere – leading us towards dangerous climate change – is perhaps the most obvious environmental limit that humanity is facing. But this is not the only ecological crisis that our consumption of the Earth's resources is driving. Others include:

- Forests are being cleared for animal feed and fuel crops such as soya and oil palm.
- Ecosystems and habitats are increasingly imperilled by pollution from industry, extraction and dumping.
- The oceans are being emptied of fish far faster than they can replenish themselves.

The impacts of resource use on people

The over-use of natural resources not only affects the environment, but people too.

In Indonesia, for example, palm oil production has resulted in human rights abuses, leaving many indigenous communities without land, water or adequate livelihoods.[3] Some oil palm companies – often with the collusion of the police and authorities – use violent tactics to grab land from indigenous communities. Previously self-sufficient families end up locked into debt and poorly paid work, struggling to afford education and food. They lose the goods and services, such as food, materials, and medicine, that the forest previously provided. Pollution from pesticides, fertilisers and the pressing process is leaving some villages without clean water. The competition between biofuels and other uses of land can also lead to increases in food prices, which affects the ability of the poor to afford a decent diet.

It's not only people in developing countries who suffer from increasing prices of resources. Millions of Europeans are unable to heat their homes adequately – and rising energy prices will hit the poorest hardest. Tackling this problem requires ensuring people can afford to pay for heat and light, but also helping them reduce their energy consumption through energy efficiency. This includes improving housing insulation and the efficiency of heating systems. In other words, a vital part of the solution to fuel poverty is more efficient use of resources – the resource in this case being fuel.

EU environmental policy – past, present and future

Over the past 30 years Europe has made significant progress in tackling environmental threats from some harmful substances, such as air pollutants, sewage and hazardous waste. The European Union has improved the amount of a product it can make for one euro, pound or dollar. But better cost efficiency has not led to resource-use efficiency. We have simply consumed more and more.

In fact, problems flowing from the scale of European production and consumption are getting worse.

Current EU environmental policies fail to address the fundamental problem of rising resource use in a resource-finite world:

- Despite years of discussion, the EU still doesn't measure its resource use, new policies are not assessed for their impact on resource use, and the EU has no targets to reduce our resource use.
- Through its Raw Materials Initiative, the EU has shown more interest in securing access to new resources from developing countries than in increasing Europe's resource efficiency. This focus jeopardises poverty alleviation and development in developing countries. It also makes Europe over-dependent on imports and less resilient to commodity price fluctuations.[4]
- Even in areas where the EU can easily improve resource efficiency, such as waste, it is failing to bring in effective policies to make it happen. For example, a recent analysis for Friends of the Earth showed that Europe is currently burying and burning more than 5 billion euros worth of valuable resources.[5]

With the EU so dependent on imported resources there is clearly an urgent need for more policies to boost eco-efficiency and reduce waste.

"Our prosperity will come from innovation and from using resources better, and where the key input will be knowledge...

"In developing a new vision and direction for EU policy, we need to recognise that conserving energy, natural resources and raw materials, using them more efficiently and increasing productivity will be the key drivers of the future competitiveness of our industry and our economies."

European Commission, Consultation on the Future "EU 2020" Strategy, November 2009[1]

THE SOLUTION – measuring Europe's resource use

The EU does not currently measure its total use of resources, which makes it difficult for targets to be set or policies to be evaluated.

A 2009 study by Friends of the Earth Europe and Sustainable Europe Research Institute (SERI) in Vienna looked at how to measure Europe's use of resources in a way that is achievable and comprehensive.[6] It concluded that the best way would be to use four indicators:

- **Land** (in hectares), including land used outside the EU (for example to grow crops for food or energy sources).
- **Material** (in tonnes), including those used to make products that are imported into Europe (sometimes called the material rucksack of products). Data sources allow this figure to be broken down into different forms of materials, for example biological and mineral resources.
- **Water** (in litres), including water used outside the EU to produce imported products (eg cotton).
- **Greenhouse gas emissions** created by EU's consumption (in CO_2 equivalent), which includes both Europe's Kyoto emissions, and the carbon footprint associated with imported products.

These indicators already exist in research literature, and they are all quite transparent, measuring clear physical quantities.

The indicators do not directly measure impacts on biodiversity. But they can be used to highlight issues that need to be investigated. For example, if a new policy such as a biofuel target or reform of the Common Agricultural Policy results in a measurable big increase in EU land use, then there should be further investigation.

Nor do the indicators address issues of hazardous chemicals or pollution; but it has been found that specific regulation (such as the REACH chemicals policy) is more effective in this area.

The Spring Alliance manifesto,[7] supported by the European Trade Union Confederation and a large number of environment, development and social non-governmental organisations, also includes a demand for Europe to measure its overall resource use:

"Measure the EU's overall resource use, including the use of material, water and land, as well as greenhouse gas emissions, whether occurring inside or outside the EU."

How would these indicators be used?

- The indicators can be used by the EU and governments to set targets, measure progress, establish policies and assess the impact of policy changes.
- Companies can use them to assess and improve the resource use associated with their products and activities.

This measurement approach would provide a key tool for increasing integration and policy coherence, showing the real extent of EU's consumption of natural resources. Through measuring resource use it will be possible to incorporate resource efficiency into impact assessment. Adding these indicators to impact assessment would enable resource impacts to be highlighted at an early stage, and help identify areas where further investigation is required (which is a key role of impact assessment).

For example, if these indicators had been part of the impact assessment of the 10 per cent biofuels targets in the Renewables Directive, it would have been clear that to achieve such targets the EU would need a considerable increase in its land footprint. This would have triggered further questions about where this land might come from, and what – or who – was using it at the moment. In fact, land was mentioned only once in the impact assessment, and there was no serious consideration of the amount of land required by the policy.[8]

The indicators would also allow the EU to develop targets to reduce its resource use, and help in the development of policy to achieve these targets.

For example, our research has shown that each year the EU is disposing of more than 5 billion euros of valuable resources (by sending them to landfill or incinerating them).[5] This is a conservative analysis, which excludes the scarce metals found in electrical goods, for example. Yet the impact assessment of the Thematic Strategy on Waste Prevention and Recycling in 2005 did not assess the resource efficiency benefits of different policy options.[9]

CONCLUSION

As global population grows, and standards of living rise in many countries, the pressure on the world's resources – whether land, materials, water, or the climate – becomes ever greater. This pressure will affect people, the environment, governments and businesses around the world.

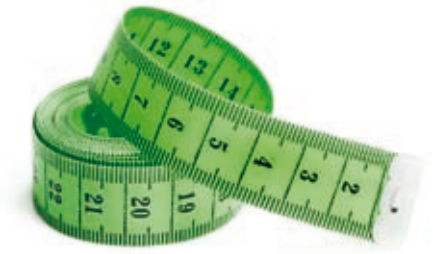
The EU must respond to these trends and seize the opportunity to accurately assess and reduce our resource use. The indicators that Friends of the Earth and SERI have developed provide a workable and effective way of helping the EU measure and reduce its consumption of natural resources. By adopting these resource-use indicators into the EU policy-making process, Europe will be taking the first steps to developing a decarbonised and highly resource-efficient economy, with the benefits for people, the environment and economy that would bring.

Friends of the Earth has worked with Sustainable Europe Research Institute in Vienna to derive new indicators for the EU to measure and reduce its resource use.

We have selected four indicators, which all include both the resources used within the EU and in the production of goods that we import:

- **LAND:** the total area used in hectares
- **MATERIALS:** the total tonnage used, divided into biological and mineral materials
- **WATER:** water footprint, measured in litres
- **CLIMATE:** carbon footprint, including the carbon emissions associated with imported products

These indicators can help us improve Europe's resource efficiency.



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MEASURING OUR RESOURCE USE

SUMMARY

Europe is using more and more of the world's resources, including land, materials and water. Global competition for resources is growing fast, leading to a long term trend of rising prices, and Europe's dependence on imported resources makes it economically vulnerable. Growing global use of resources also has many adverse impacts on people and the environment across the world.

Increasing Europe's resource efficiency will help Europe to become less dependent on imports, save money for companies, and make our economy more resilient to fluctuations in the future price and availability of resources.

Friends of the Earth Europe is therefore calling on the European Union to measure its global resource use, so that we know what we are currently dependent on, and so we can create policies that will make us more resource efficient.

Following an in-depth examination of resource use measurement by the Sustainable Europe Research Institute in Vienna, we are proposing the following four indicators:

1 **LAND** The land we use, both within Europe and outside Europe as a result of imported products.

2 **MATERIALS** The materials we use, both within and outside Europe, and divided into biological and mineral materials.

3 **WATER** Our water footprint, which measures the water used within Europe and that involved in producing our imports.

4 **CLIMATE** Our carbon footprint, the greenhouse gas emissions we are responsible for within Europe and as a result of our imports.

Measuring these indicators, and using them in the impact assessment of new policies, will allow us to evaluate our current global resource use and identify which policies can be used to reduce this resource use.

This measurement approach would provide a key tool for increasing Europe's policy integration and coherence, help the EU to develop targets to reduce its resource use, and aid the development of policy to achieve these targets.

For further information on the Friends of the Earth Europe Resources and Consumption campaign, see www.foeeurope.org/activities/waste_management/index_resources.html

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Friends of the Earth England, Wales and Northern Ireland is part of Friends of the Earth International – the world's largest grassroots environmental network, uniting 77 diverse national member groups and some 5,000 local activist groups on every continent. With over 2 million members and supporters around the world, we campaign on today's most urgent environmental and social issues.

Making life better for people by inspiring solutions to environmental problems

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