

Press release

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Transition to sustainable raw materials management needed in Germany

In order to produce, further process and use raw materials responsibly in the future, comprehensive and material-specific sustainability targets are needed. These targets must take into account environmental and social challenges in equal measure. Up to now, development of a strategy for raw materials has almost exclusively focused on the economic factor of shortage; Oeko-Institut, however, is calling for a more comprehensive perspective to be used.

In a first policy paper on the project “Germany 2049: On the path to sustainable raw materials management”, Oeko-Institut shows – based on the example of Germany’s demand – the (in some cases serious) social and environmental impacts of production, treatment and processing of raw materials in Germany and abroad. In the case of serious negative consequences – so-called “high impacts” – the team of researchers is deriving material-specific targets which include, depending on the specific challenge at hand, measures and changes on the supply and demand side.

From gravel to cobalt – a single indicator is not enough

The diversity of the raw materials for which there is demand in Germany is reflected in the totally different problems in which they are situated and thus also the very different social and environmental challenges they present. For example, a mass building material like gravel is extracted almost exclusively in Germany to meet national demand. A serious consequence of this is ongoing land use, which in some cases even includes protective forest. There can also be major environmental risks involved. In the case of the technology metal neodymium, for example, the radioactive residues arising during primary production – above all in China, the main supply country – are one such major risk. Cobalt production presents, in turn, a challenge on a social level with regard to child labour and worker safety; approx. 30 per cent of the cobalt extracted worldwide comes from small-scale artisanal mines (in Central Africa).

These examples show that one indicator alone is not sufficient to measure the developments and achievements of sustainable raw materials policy. “Only a real, far-reaching transition to a sustainable use of raw materials can reduce the negative environmental and social impacts on a broad scale. For this purpose, we must develop and implement material-specific sustainability targets and tailored strategies for achieving them,” says Dr. Matthias Buchert, Head of the Infrastructure & Enterprises Division at Oeko-Institut.

“Staying with the example of gravel: For mass raw materials like this, medium- and long-term measures are needed that reduce the absolute consumption of this non-renewable resource. At the same time, strategies for reducing the quantities of the raw material are not suited to a technology metal like neodymium since the latter is used in many environmental technologies, thereby helping to conserve other resources. Instead, important steps in such cases are targeted environmental measures in the primary chain and the introduction of recycling.”

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Next project phase: Scenario-based determination of potentials

In the next phase of the project, the team of experts will structure, consolidate and further develop the considerable amount of previous research conducted on a national and international level on this topic. Building upon the material-specific sustainability targets – which aim to reduce the negative impacts of the utilization of raw materials – the researchers will elaborate measures and instruments tailored to specific raw materials and areas of need.

For this purpose, Oeko-Institut is developing a scenario for a far-reaching transition to sustainable raw materials management which contains measures on the supply and demand side geared to reducing the negative environmental and social impacts. Suitable instruments for achieving this include benchmarks for sustainable primary production based on dynamic minimum standards for environmental and social impacts (supply side) as well as the substitution of critical raw materials, longer use of products and infrastructure and an expansion of recycling (demand side).

[First policy paper on Oeko-Institut's project "Germany 2049 – On the path to sustainable raw materials management" \(in German\)](#)

[Presentations from the "German transition to sustainable raw materials 2049" workshop of 5 February 2015 on the Resource Fever website](#)

Further information:

[Press release on the start of Oeko-Institut's project "Germany 2049: On the path to sustainable raw materials management"](#)

More information on Oeko-Institut's projects on raw materials and resources is available on the following website: www.ressourcenfieber.de.

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Oeko-Institut is a leading independent European research and consultancy institute working for a sustainable future. Founded in 1977, the institute develops principles and strategies for ways in which the vision of sustainable development can be realised globally, nationally and locally. It has offices in three cities in Germany: Freiburg, Darmstadt and Berlin.

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