



Initiative Resource Efficiency and Climate Action

Fostering Cooperation on Resource Efficiency with Emerging Economies

Background

In the year 2050, we will probably be more than 9 billion people living on the planet, 28 percent more than today¹. If current trends persist, we will use, on average, 71 percent more resources per capita than we presently do, as a report from UN Environment International Resource Panel (IRP) predicts¹. As a result, the report estimates that the global use of metals, biomass, minerals such as sand, and other materials will increase from current 85 to 186 billion tonnes per year¹. This enormous rise in the use of natural resources could considerably aggravate today's major environmental challenges, including climate change, water scarcity, and the loss of biodiversity.

In contrast to this alarming business-as-usual scenario, a more sustainable use of materials and energy through increased resource efficiency offers big opportunities for sustainable development, competitiveness, and the environment. Moreover, a more efficient use of the world's natural resources would mean annual economic benefits of \$2 trillion by 2050, offsetting the costs of ambitious climate action goals².

So far, these potentials of resource efficiency for the fight against climate change remain largely untapped. In recent years, however, the benefits of resource efficiency have been increasingly recognized in national policies and at international level. Under the Sustainable Development Goals, the global community has committed to improve progressively, through 2030, global resource efficiency in consumption and production, and to endeavor

to decouple economic growth from environmental degradation. The **G20 Resource Efficiency Dialogue** initiated under the German Presidency in 2017 put resource efficiency prominently on the G20 agenda. The Dialogue series discusses good practices and national experiences to improve the efficiency and sustainability of natural resource use across the entire life cycle, and to promote sustainable consumption and production patterns. The sub-sequent Argentinian (2018), Japanese (2019) and Italian presidencies (2021) continued the dialogue and under the Japanese G20 Presidency, a first "Roadmap for Resource Efficiency" was adopted guiding the further exchanges on good practices on resource efficiency. The International Resource Panel (IRP) published a key study on resource efficiency potential for climate protection in November 2020, discussing challenges, opportunities and proposing strategies forward.

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Implementation	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Implementing Partners of the Project	UN Environment, hosting the International Resource Panel (IRP) (Phase 2)
Countries	The global project supports selected emerging economies within G20 (Argentina, Indonesia, Mexico)
Duration	Phase 1: 01.09.2017 – 28.02.2021 Phase 2: 01.03.2021 – 29.02.2024

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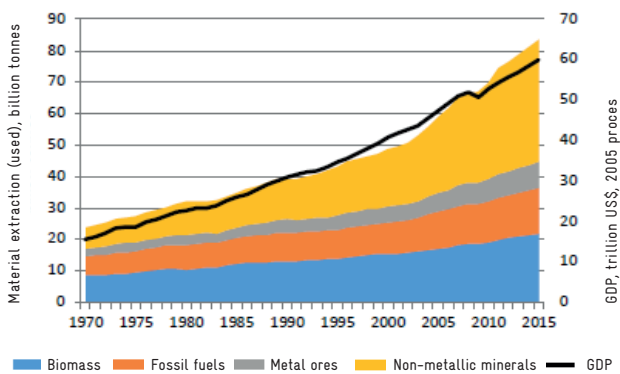


based on a decision of the German Bundestag

Challenges

Resource efficiency is highly relevant for competitiveness: Many emerging economies display high economic growth rates, while material productivity has often remained low. Furthermore, emerging economies are facing increasing resource consumption due to the accelerated infrastructure expansion needed for economic development, as well as due to changing consumption patterns resulting from rising living standards.

In addition, efficient resource use is crucial for tackling climate change. For instance, worldwide, ore grades are decreasing. Therefore, extracting and processing abiotic raw materials becomes more energy intensive, thus increasing greenhouse gas emissions. Tapping the potentials for a more efficient and effective use of raw materials in production, buildings, and infrastructure could lead to win-win solutions, benefitting the economy and contributing to mitigating global climate change.



UNEP (2017) Resource Efficiency: Potential and Economic Implications. A report of the IRP.

Project Objectives

A first project phase (2017-2021) aimed at sensitizing and strengthening capacities of key actors from the public and private sector to develop and push forward measures and integrated strategies for increasing resource efficiency and improving climate protection. The second project phase (2021-2024) aims at deepening and enhancing these capacity developments for both public and private sector.

Approach

The project supports selected G20 emerging economies (Argentina, Indonesia, Mexico) in order to increase awareness about the strong links between resource efficiency, climate protection, and sustainable development.

In close coordination with the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and Consumer Protection (BMUV), the project focuses on:

- ▶ Strengthening the capacities of key players in the public and private sector in Argentina, Indonesia and Mexico through targeted capacity-building (studies, analyses, tool developments, trainings for SMEs).
- ▶ Contributing to identify potentials for enhancing resource efficiency for climate protection in the selected partner countries.
- ▶ Providing demand-oriented technical advice regarding strategies and measures for resource efficiency, including increasing the level of ambition of Nationally Determined Contributions (NDCs).
- ▶ Promoting knowledge sharing and exchange of experiences with and among emerging countries of the G20.
- ▶ Fostering the inclusion of resource efficiency and climate protection into international processes.

For further information, please visit:

GIZ Website: www.giz.de/en/worldwide

and IKI Website: www.international-climate-initiative.com

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Sources:

¹UNEP (2017) Resource Efficiency: Potential and Economic Implications. A report of the International Resource Panel. Ekins, P., Hughes, N., et al.
²Dobbs, R., Oppenheim, J., Thompson, F., Brinkman, M., & Zornes, M. (2011). Resource Revolution: Meeting the world's energy, materials, food, and water needs. McKinsey Global Institute, McKinsey Sustainability and Resource Productivity Practice.

GIZ is responsible for the content of this publication.

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