



# 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 today<sup>1</sup>. If current trends persist, we will use, on average, 71 percent more resources per capita than we presently do, as a recently published report from UN Environment International Resource Panel (IRP) predicts<sup>1</sup>. 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 year<sup>1</sup>. 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 goals<sup>2</sup>.

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 recognised 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 endeavour to decouple economic growth from environmental degradation. In this light, the G20 countries decided at their summit in Hamburg in July 2017 to establish a "G20 Resource Efficiency Dialogue". The Dialogue will exchange 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.

<b>Financing</b>	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through the International Climate Initiative (IKI)
<b>Implementation</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
<b>Implementing Partners of the Project</b>	United Nations Industrial Development Organization (UNIDO) & UN Environment, hosting the International Resource Panel (IRP)
<b>Countries</b>	The global project supports selected emerging economies within G20
<b>Duration</b>	01.09.2017 – 28.02.2021

### Challenges

Resource efficiency is highly relevant for competitiveness: Many emerging economies display high economic growth rates, while material productivity has often remained low. Furthermore,

Published by

**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

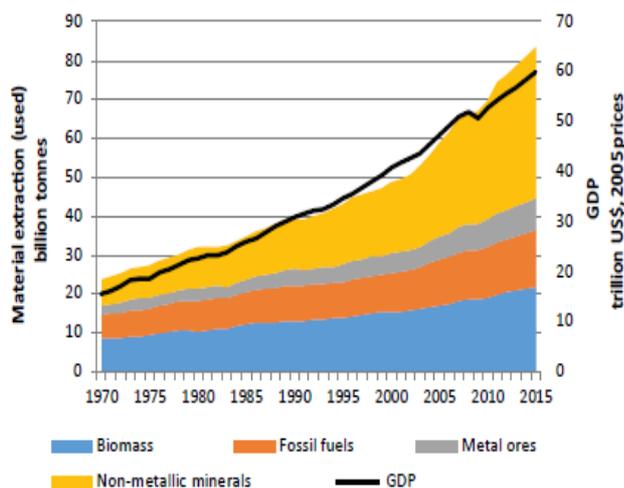
On behalf of:

 Federal Ministry  
for the Environment, Nature Conservation  
and Nuclear Safety

of the Federal Republic of Germany

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

The project aims to strengthen capacities of key actors from public and private sector to develop and push forward measures and integrated strategies for

increasing resource efficiency and improving climate protection.

## Approach

The project addresses, in particular, emerging economies within the G20 that display strong industrial growth alongside with increasing resource use and related greenhouse gas emissions, 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 (BMU), the project focuses on:

- 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
- Strengthening the capacities of key players in the public and private sector through targeted trainings
- Contributing to identify potentials for enhancing resource efficiency and climate protection in selected participating countries
- Providing demand-oriented technical advice regarding strategies and measures for resource efficiency, increasing the level of ambition of Nationally Determined Contributions (NDCs).

### Published by:

Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices  
Bonn and Eschborn, Germany

Köthener Straße 2-3  
10963 Berlin, Germany  
T +49 30 40 8190-219/285  
F +49 30 40 8190-109  
E giz-berlin@giz.de  
I www.giz.de

Initiative Resource Efficiency and Climate Action

### Responsible:

Elisabeth Dürr  
T +49 30 33 8424-629  
E elisabeth.duerr@giz.de

### Design/layout:

Ariel Araujo, Berlin

### Photo credits:

© GIZ / Florian Kopp; © UN Environment

### Sources:

<sup>1</sup>UNEP (2017) Resource Efficiency: Potential and Economic Implications. A report of the International Resource Panel. Ekins, P., Hughes, N., et al.

<sup>2</sup>Dobbs, 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.

On behalf of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany. The project is part of the International Climate Initiative (IKI)

Berlin, May 2018