



Climate action through circular economy

Circular economy as an important lever for achieving the Paris climate targets

CHALLENGE AND POTENTIAL

Since 1970, **global resource extraction** has tripled. Resource extraction and processing account for about half of global greenhouse gas (GHG) emissions

The **waste sector** accounts for around 5 per cent of global GHGs (as of 2016). Significant emissions can be saved through better waste recycling and controlled disposal.

- Organic waste accounts for more than 60 percent of municipal waste in developing and emerging countries. It often rots in unregulated landfills, releasing harmful greenhouse gases, such as methane.
- Waste is often burned uncontrollably and in the open air. The resulting soot emissions, which have not yet been considered in the IPCC inventories, account for up to 10 per cent of global greenhouse gas emissions.

Circular economy aims to preserve the value of products, materials and resources for as long as possible by returning them to the product cycle at the end of their useful life, while minimizing waste generation.

Circular approaches affect **all stages of resource management**, such as improving resource efficiency and product design with a focus on using non-fossil or recycled materials, increasing service life, enhancing the ability to recycle and repair, and establishing new, sustainable business models, such as product sharing.

In this way, the **GHG reduction potential of the circular economy** goes far beyond the waste sector:

- Through a cross-sectoral transformation towards a circular economy and consistent efforts to avoid waste generation, up to **20 per cent of global greenhouse gas emissions** can be saved.
- The Nationally Determined Contributions (NDCs) to the **Paris Agreement** contain concrete measures for the waste sector, but thus far, hardly any for the circular economy.
- However, the circular economy can make a significant contribution to closing the gap between the commitments made to date and the ambition needed to achieve the 1.5-degree target.

Circular economy is an important lever for achieving the goals of the Paris Agreement, as well as the **United Nations' 2030 Agenda**, including a number of important developmental goals, in particular:

SDG 8 (Resource efficiency in consumption and production), **SDG 11** (Sustainable cities, collection and disposal of waste), **SDG 12** (Prevention and improved management of waste, recovery and reuse), **SDG 13** (Climate change mitigation) and **SDG 14** (Reduction of marine debris).

DEVELOPMENT POLICY APPROACH AND TARGET-SETTING

German development policy aims to support, through multi- and bilateral cooperation, **the development and establishment of circular economy systems.**

The Federal Ministry for Economic Cooperation and Development (BMZ) takes a **holistic approach**. The entire value chain is considered in accordance with the **principle of waste hierarchy**: avoidance before recycling, recycling before disposal. Innovative product design and business models prevent waste from being generated in the first place. Composting and recycling return resources to product cycles and conserve primary raw materials. Controlled waste incineration and the use of landfill gas can contribute to a sustainable energy mix.

The BMZ wants to **highlight the importance of the circular economy for climate and environmental action** worldwide and promote corresponding policies, strategies and projects across sectors. In the future, national and municipal institutions will be supported in developing and implementing circular economy approaches as a means of raising the ambition of their NDCs.

Today, three-quarters of global resource consumption is already attributable to cities, and more than half of all people live in urban areas. The central fields of action for the BMZ's approach are, therefore, **cities.**

THE BMZ'S CONTRIBUTION

The BMZ supports partner countries as follows:

- **Developing and implementing strategies and legislation**, elaborating and implementing environmental and safety standards, creating legal frameworks for **extended producer responsibility**, and offering **policy-based lending**;

- Cooperating with cities to **establish and expand climate-friendly waste management**, together with the private and informal sectors, and improving fee systems to finance waste management systems;
- Providing advisory services and financing for the **expansion and reconstruction of waste management infrastructure** and facilities for recovery, treatment and recycling;
- Developing offers of support to the private sector in partner countries to promote **investments and developing new circular economy business models**;
- **Advising on incentive mechanisms** for waste prevention and recycling, establishing circular economy approaches in production, consumption, and trade, raising public awareness.

At the global level, the BMZ is focused on:

- **Promoting cross-sectoral knowledge exchange and implementing pilot projects**, for example, on organic-waste management in Ethiopia, through the [PREVENT Waste Alliance](#);
- **Developing guidance and tools**, for example, for capturing greenhouse gas emissions from the waste sector;
- **Cooperating with international initiatives**, such as the Climate and Clean Air Coalition (CCAC), the UN Habitat Waste Wise Cities Campaign, the International Solid Waste Association (ISWA), including its flagship project Climate and Low Carbon Initiative, and the International Council for Local Environmental Initiatives (ICLEI).