

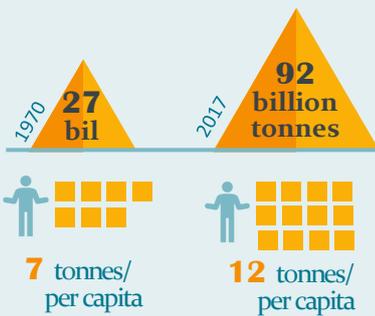


# Global Materials Use

## Key Facts

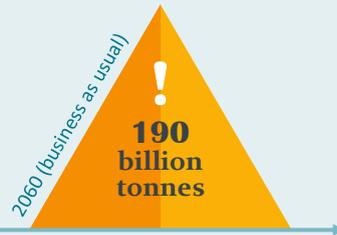
### Status

From 1970 to 2017, the annual global extraction of materials **tripled**, per capita material demand also grew.



### Projections

Following the current trend, global materials use could more than **double** by 2060 (IRP, 2019; OECD, 2019).



Today, the global economy is only **8.6%** circular — just two years ago it was **9.1%** (Circularity Gap Report 2020).



### Environmental Impacts

IRP research shows that, in 2017 natural resource extraction and processing accounts for:

- >90%** of global biodiversity loss
- >90%** of water stress
- ~50%** of global greenhouse gas (GHG) emissions.

With the current trend, annual waste generation is projected to increase by **70%** by 2050 (World Bank, 2018).



### Solutions: Decoupling, Resource Efficiency, and Circular Economy

**Decoupling** natural resource use and environmental impacts from economic activity and human well-being is essential to aid the transition to a sustainable future.

Research from UNEP's IRP indicates that investments in resource efficiency represent one of the least-costly approaches to help meeting the **Sustainable Development Goals** and the **Paris Climate Agreement**.

By 2060, **resource efficiency** and sustainable consumption and production measures could globally:

- Reduce 25%** resource use
  - Reduce 90%** GHG emissions
  - Increase 8%** economic activity
- (IRP, 2020)

By 2050, adopting **circular economy** methods for 4 key industrial materials (cement, steel, plastic and aluminium) could globally:



**Reduce 40%** GHG emissions. If include food systems, a total of **49%** GHG emissions can be reduced.

↓  
Overall such reductions could bring emissions from these areas **45%** closer to their net-zero emission targets (Ellen MacArthur, 2019).

