

Rich countries found to use six times more resources, generate 10 times the climate impact: Report

March 4 2024



Natural resources and the SDGs. Credit: Adapted from IRP (2022) and IRP (2019a)

The extraction of the Earth's natural resources tripled in the past five

decades, related to the massive build-up of infrastructure in many parts of the world and the high levels of material consumption, especially in upper-middle and high-income countries.

Material extraction is expected to rise by 60% by 2060 and could derail efforts to achieve not only global climate, biodiversity, and pollution targets but also economic prosperity and human well-being, according to a [report published](#) today by the UN Environment Program (UNEP)-hosted International Resource Panel.

The 2024 Global Resource Outlook, developed by the International Resource Panel with authors from around the globe and launched during the sixth session of the UN Environment Assembly, calls for sweeping policy changes to bring humanity to live within its means and reduce this projected growth in resource use by one third while growing the economy, improving well-being, and minimizing environmental impacts.

The report finds that growth in resource use since 1970 from 30 to 106 billion tons—or from 23 to 39 kilograms of materials used on average per person per day—has dramatic environmental impacts. Overall, [resource extraction](#) and processing account for over 60% of planet-warming emissions and for 40% of health-related impacts of air pollution.

The extraction and processing of biomass (e.g., agricultural crops and forestry) accounts for 90% of land-related biodiversity loss and water stress, as well as one-third of greenhouse gas emissions. Similarly, extraction and processing of fossil fuels, metals and non-metallic minerals (e.g., sand, gravel, clay) together account for 35% of global emissions.

"The triple planetary crisis of climate change, nature loss and pollution is driven from a crisis of unsustainable consumption and production. We

must work with nature instead of merely exploiting it," said Inger Andersen, Executive Director of UNEP. "Reducing the resource intensity of mobility, housing, food, and [energy systems](#) is the only way we can achieve the Sustainable Development Goals and ultimately a just and liveable planet for all."

At the heart of global resource use are fundamental inequalities: [low-income countries](#) consume six times less materials and generate 10 times less climate impacts than those living in [high-income countries](#). Upper-middle-income countries have more than doubled resource use in the past 50 years due to their own growth in infrastructure and the relocation of resource-intensive processes from high-income countries.

At the same time, per capita resource use and related environmental impacts in low-income countries has remained relatively low and almost unchanged since 1995.

Where consumption levels are very high, greater focus on lowering resource and material consumption levels to complement action on production and resource efficiency can reduce around 30% of global resource use as compared to historical trends, while growing the global economy, improving lives, and staying within planetary boundaries.

Where resource use needs to grow, strategies can be put in place to maximize the value of each unit of resource used and meet human needs in ways that are not resource-intensive, so that the benefits of resource use far outpace the rate of their extraction and the environmental and health impacts stay in line with international obligations on climate, biodiversity, and sustainability.

Incorporating environmental externalities in [trade agreements](#), strengthening regulation of financial commodity markets, and putting in place impact related border adjustment policies are just some of the

ways that countries can prevent a race to the bottom on environmental and social standards of resource extraction, and maximize and retain the value from extraction processes in country.

"We should not accept that meeting human needs must be resource intensive, and we must stop stimulating extraction-based economic success. With decisive action by politicians and the private sector, a decent life for all is possible without costing the earth," said Janez Potočnik, the International Resource Panel's Co-Chair.

"Last year's climate conference agreed to transition away from fossil fuels. Now is the time to bring everyone to the table to phase up solutions to make that possible. Now is the time to phase up resource-based solutions for climate, biodiversity and equity so that everyone, everywhere can live a life in dignity," said Izabella Teixeira, the International Resource Panel's Co-Chair.

Specific recommendations include:

- Institutionalizing resource governance and defining resource use paths especially the consideration of sustainable resource use in strategies to implement Multilateral Environmental Agreements (MEAs) and improving the ability of countries to benchmark and set targets for resource consumption and productivity. Directing finance towards sustainable resource use by reflecting the true costs of resources in the structure of the economy (i.e., subsidies, regulation, taxes, nudges, infrastructure, and planning). Additional recommendations include channeling private finance towards sustainable resource use and incorporating resource-related risk into Public and Central Bank mandates.
- Mainstreaming sustainable consumption options by making sure consumers have the right information, have access to and are able to afford sustainable goods and services. Such measures

must be coupled with regulation to disincentivize or ban resource-intensive options (like non-essential single-use plastic products).

- Making trade an engine of sustainable resource use by creating a level playing field where the true environmental and social costs of goods are reflected in prices by introducing MEAs into trade agreements, for example.
- Creating circular, resource-efficient and low impact solutions, and business models to include refuse, reduce, eco-design, reuse, repair, and recycling, as well as supportive regulation and evaluation of existing systems.

Implemented together, these policies can transform the built environment, mobility, food, and energy systems, resulting in an upsurge in renewable energies and energy efficiency, decarbonization of material production, more walkable and cyclable cities with better public transportation and remote work opportunities, as well as reduced food loss and waste. High- and upper-[middle-income countries](#) would see a dietary shift away from animal protein and more compact cities, while lower-income economies would experience a rise in resource use to enable dignified living.

Such systemic shifts are projected to peak resource extraction by 2040 and then decrease use to only 20% above 2020 levels by 2060. Greenhouse gas emissions would drop by over 80%, stocks of transport-related materials and building materials would fall by 50 and 25% respectively, and land used-use for agriculture would fall by 5%. Concurrently, food production would increase by 40% to support populations; even where there is growth and food security, the global economy would grow by 3%, and the Human Development Index would improve by 7%, boosting incomes and well-being.

Given the failure so far to deliver on many policy commitments in MEAs and the urgency of the triple planetary crisis, the report supports

