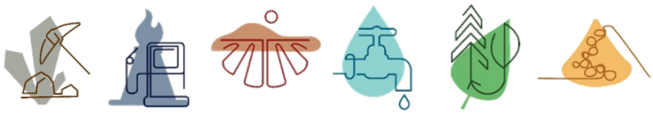
The International Resource Panel

Who we are

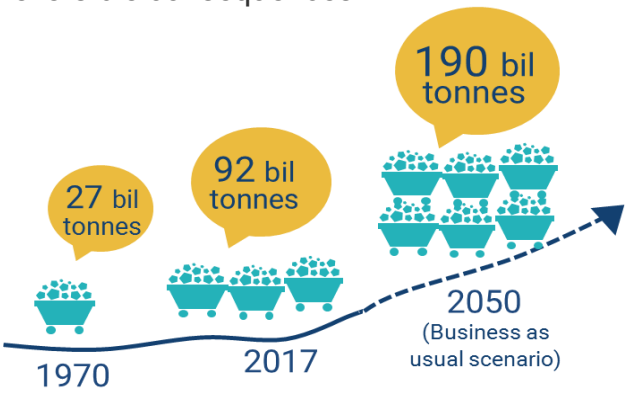
The International Resource Panel (IRP) is a global science-policy platform established by the United Nations Environment Programme (UNEP) in 2007 to build and share knowledge needed to improve our use of natural resources.

The Panel's mission is to:

- Provide independent, coherent and authoritative scientific assessments of policy relevance on the sustainable use of natural resources and, in particular, their environmental impacts over the full life cycle.
- Contribute to a better understanding of how to decouple economic growth from environmental degradation while enhancing human well-being.



Over the past five decades, our global population has doubled and the use of natural resources has more than tripled. The extraction and processing of natural resources accounts for more than 90 per cent of our biodiversity loss and water stress and approximately half of our climate change impacts. If we continue with the current trend, the use of natural resources will further double by 2050 and cause irreversible consequences.



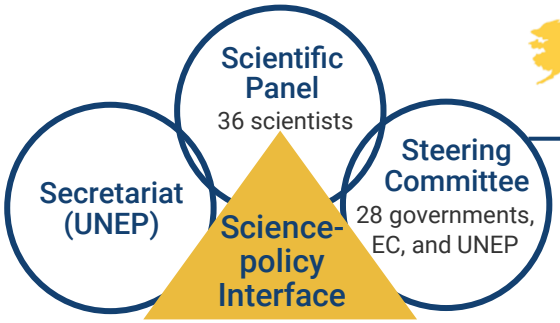
The IRP has the urgent task of helping to transform how we use and re-use resources.

Its work provides evidence that it is possible to move to a new paradigm of resource use that is socially equitable, economically efficient, and environmentally healthy.

Structure

The Panel has more than 35 expert members drawn from a wide range of academic institutions and scientific disciplines, supported by a small Secretariat hosted by UNEP. It is co-chaired by Janez Potočnik, former European Commissioner for the Environment, and Izabella Teixeira, former Environment Minister of Brazil.

Its Steering Committee is drawn from representatives of governments, the European Commission (EC) and UNEP. It guides the Panel's strategic direction, ensures policy relevance, and oversees budgets.



What we do

The IRP investigates the world's most critical resource issues with a view to supporting governments, industry, and society to improve resource efficiency — a necessary condition to achieve the Sustainable Development Goals (SDGs).

In all its work, the IRP seeks practical solutions to the growing problems posed by resource depletion and misuse by identifying:

IRP Global Material Flows Database

The IRP provides a comprehensive understanding of linkages between the world economy, population and material use spanning four decades based on the authoritative Global Material Flows Database of global materials extraction and materials trade.

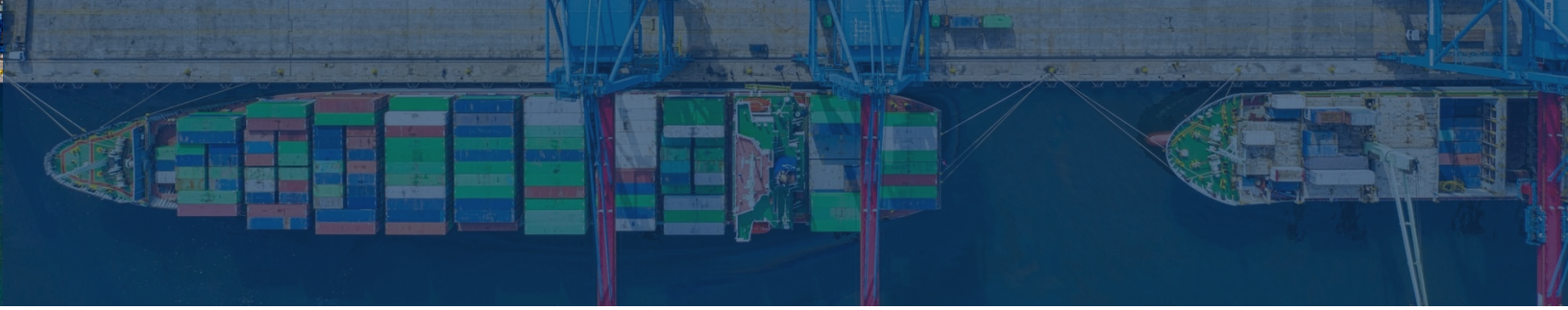
The data set presents direct and consumption-based material flow indicators for seven world regions and for more than 185 countries, covering total usage, per capita use, and material use per US dollar. It also provides details for different groups of materials.

Access the database:
www.resourcepanel.org/global-material-flows-database

Official data source for measuring global progress on SDG targets 8.4 and 12.2

Development of the IRP scientific assessments, including the flagship report: Global Resources Outlook

Feeding into the Sustainable Consumption and Production Hotspot Analysis Tool: www.scp-hat.lifecycleinitiative.org



IRP publications

The following list of reports and think pieces were published by the IRP between 2011-2020, categorized by themes. All publications are available at: www.resourcepanel.org/reports.

Global Resource Use

The Global Resources Outlook 2019: Natural Resources for the Future We Want (2019)

Natural Resource Use in the Group of 20: Status, Trends and Solutions (2019)

Assessing Global Resource Use: A Systems Approach to Resource Efficiency and Pollution Reduction (2017)

Material Flow Analysis and Trade

*Sustainable Trade in Resources: Trade, Global Material Flows and Circularity (2020)

Re-defining Value–The Manufacturing Revolution: Remanufacturing, Refurbishment, Repair and Direct Reuse in the Circular Economy (2018)

Global Material Flows and Resource Productivity (2016)

International Trade in Resources: A Biophysical Assessment (2015)

Decoupling and Resource Efficiency

Resource Efficiency for Sustainable Development: Key Messages for the Group of 20 (2018)

Resource Efficiency: Potential and Economic Implications (2017)

Decoupling: Technologies Opportunities and Policy Options (2014)

Decoupling Natural Resource Use and Environmental Impacts from Economic Growth (2011)

Assessing the Environmental Impacts of Consumption and Production: Priority Products and Materials (2010)

Sustainable Cities

The Weight of Cities: Resource Requirements of Future Urbanization (2018)

City-level Decoupling: Urban Resource Flows and the Governance of Infrastructure Transitions (2013)

SDGs and Resources

Policy Coherence of the Sustainable Development Goals (2015)

Responsible Resource Management for a Sustainable World (2012)

Resource Efficiency and Climate Change

Resource Efficiency and Climate Change: Material Efficiency Strategies for a Low-Carbon Future (2020)

Green Technology Choices: The Environmental and Resource Implications of Low-Carbon Technologies (2017)

Green Energy Choices: The Benefits, Risks and Trade-offs of Low-Carbon Technologies for Electricity Production (2016)

10 Key Messages on Climate Change (2015)

Marine and Water Resources

*Governance to Reduce the Effects of Land-Based Activities on Coastal Resources and Support the Transition to a Sustainable Blue Economy (2020)

*Policy Options to Reduce Additional Pollution by Marine Plastic Litter by 2050 (2020)

Options for Decoupling Economic Growth from Water Use and Water Pollution (2015)

Measuring Water Use in a Green Economy (2012)

Food, Land, and Biodiversity

Land Restoration for Achieving the Sustainable Development Goals (2019)

Unlocking the Sustainable Potential of Land Resources: Evaluation Systems, Strategies and Tools (2016)

Food Systems and Natural Resources (2016)

Assessing Global Land Use: Balancing Consumption with Sustainable Supply (2014)

Building Natural Capital: How REDD+ Can Support a Green Economy (2014)

Assessing Biofuels Towards Sustainable Production and Use of Resources (2009)

Minerals and Metals

Mineral Resource Governance in the 21st Century: Gearing Extractive Industries Towards Sustainable Development (2019)

Metal Recycling: Opportunities, Limits, Infrastructure (2013)

Environmental Risks and Challenges of Anthropogenic Metals Flows and Cycles (2013)

Recycling Rates of Metals: A Status Report (2011)

Metal Stocks in Society: A Scientific Synthesis (2010)

*Upcoming publications in 2020

How we deliver

Scientific studies

The Panel uses constructive and robust approaches, concepts and tools to make scientific assessments of value to policymakers, businesses, and the general public. All IRP reports are peer reviewed.

Identify global issues of sustainability in need of independent scientific assessment

Build scientific teams

Assess the existing science

Prepare assessments and provide policy-relevant recommendations

Dissemination and outreach

The IRP develops a diverse package of materials and engages in outreach activities to support the effective dissemination of knowledge.

It also works with a number of Strategic Partners that provide support in the development and dissemination of IRP publications, enhancing its policy and academic impact, and creating synergies with relevant stakeholders.

Strategic Partners

SUN · UNITED NATIONS ESCAP · WORLD ECONOMIC FORUM · EARTH COMMISSION · OECD · wbcsd · International Science Council · One planet handle with care · ELLEN MACARTHUR FOUNDATION · WORLD RESOURCES INSTITUTE · ICC · IUCN · UNITED NATIONS · PBL Netherlands Environmental Assessment Agency · ECLAC

Collaboration and impact

IRP reports are designed to inform and influence the views, performance and decisions of those who can act on the use of natural resources and their environmental effects. For this, we work closely with public and private institutions, non-profit organizations, and other UN agencies to effectively impact public and corporate policies. The below shows some examples of our work.

UNEA

IRP reports help shape the discussions for the formation of United Nations Environment Assembly Resolutions, the most recent being UNEA-4 §1,§19,§23.

G7 FRANCE BIARRITZ 2019 · G20 SAUDI ARABIA 2020

The IRP is one of the main knowledge providers to the G7 and G20, who regularly request IRP insights on specific topics.

#EUGreenDeal

Work closely with the European Commission and was cited as one of the main sources of the new EU Green Deal.

UNDP · United Nations Convention to Combat Desertification

Collaborate with multiple UN bodies to facilitate cross-fertilization and to deepen regional impacts.

GLOBAL BUSINESS COALITION · wbcsd · ICC

Foster partnerships with business leaders to address challenges and opportunities in implementing resource efficiency strategies.

Which themes are we currently focusing on?

The IRP 2018-2021 Work Programme was approved in November 2017 with four High-Impact Priority Areas identified to guide IRP work, outlined below:

Current trends and future prospects for global resource use and sustainable resource management

The IRP provides insight into status and trends of natural resource use globally and across regions. Through scenario modelling, it identifies the most promising policy options and outlines different pathways for countries as well as interlinkages and co-benefits between different policy areas.

Upcoming projects and publications:

- Expansion of the IRP Global Material Flows Database
- Defining Sustainable Levels of Resource Use (2021)
- Scenario modelling of Integrated Natural Resource Use (ongoing scenario modelling support)
- Global Resources Outlook 2023 (2023)

Sustainable resource management within the global climate change agenda

The IRP studies the two-way interaction between climate action and sustainable resource management. The report Resource Efficiency and Climate Change: Material Efficiency Strategies for a Low-Carbon Future was successfully launched at COP 25 in Madrid. Based on solid modelling, it suggests that some 'material efficiency strategies' present significant and un-tapped potential to bring down GHG emissions and can help countries reach their climate goals in a less-costly manner with technology available today.

Socioeconomic implications of the transition to more resource efficient economies and societies

The IRP will continue its evolution to more integrated 'systems' assessments. While much of the Panel's research has focused on arresting the transgression of planetary boundaries while achieving economic development, the three upcoming studies will systematically investigate how to do so while also maintaining the 'social floor' (or minimum level of dignity and wellbeing for all).

Upcoming publications:

- Transition to a Resource-Efficient Economy (2021)
- Socio-Economic Implications of Enhancing Resource Efficiency and Promoting Circular Economy (2021)
- Resources and Finance (2023)

Sustainable resource management links to migration and conflict

The IRP is developing a report exploring the interlinkages and pathways between natural resource availability/management and migration. It seeks to illustrate how more efficient and sustainable governance of natural resources can aid in managing and/or preventing displacement and associated challenges.

Upcoming publication:

- The Role of Resources in Environmental Displacement and Migration (2021)

For more information please contact unep-irpsecretariat@un.org or visit our website at www.resourcepanel.org

UN environment programme

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