THE IRP AT 15

Improve our use of natural resources worldwide.
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OPEN LETTER FROM THE IRP’S CO-CHAIRS

on the IRP’s 15th Anniversary

We are proud to represent UNEP’s International Resource Panel (IRP) as its Co-Chairs, and to be celebrating the occasion of its 15th Anniversary. We are honoured being able to follow the excellent work done by our predecessors Ernst Ulrich von Weizsäcker, Ismail Serageldin, Alicia Bárcena Ibarra, and Ashok Khosla, the former co-chairs of the IRP. We would also like to sincerely thank for the support provided all these years by wholeheartedly devoted IRP Secretariat and other IRP friends and supporters.

Over the last 15 years, IRP has developed a first-class network of experts, policymakers, and partner organisations doing great work towards sustainable resource consumption. We are privileged to comprise of from all over the globe, with expertise in a diverse range of disciplines including industrial metabolism, economics, governance, cities, food, and much more. Through our Steering Committee of government representatives, IRP insights are directly applicable to policy questions in a wide range of global contexts. Further, we have forged partnerships with some of the world’s most impactful convening organisations, including the World Economic Forum, World Resources Institute, Ellen MacArthur Foundation, and International Chamber of Commerce, enabling real two-way engagement with the private sector and civil society.

Through its focus on natural resources, IRP is uniquely positioned to help tackle the major crises of our times: the triple planetary crisis of climate change, biodiversity loss, and pollution. IRP data shows that natural resource use is a major driver of all aspects of the triple planetary crisis: with its extraction and processing responsible for over 90% of land-related biodiversity loss, 50% climate change impacts (via fossil fuel products, biomass, steel, and cement), and one third of air pollution, as well as water and soil pollution. By examining drivers, trends, and possible futures for the origins of our biggest challenges, we can unlock the most powerful solutions to tackle them.

When IRP began its life in 2007, at the World Science Forum in Budapest, its overall objective was to foster sustainable resource management in order to decouple economic growth and environmental degradation. Since then, it has provided fascinating and powerful research on many great topics including the future of biofuels, metals and minerals, urban form, building natural capital, trade, and much more.
Decoupling has always been a central focus underpinning insights across topics. Decoupling, the concept of increasing human well-being without relying on ever-increasing natural resource use and its environmental impacts, is absolutely essential if humanity is to keep the planet in a safe operating space. IRP’s first ‘Decoupling’ report (2011) introduced the concept and made it clear that achieving decoupling will require significant changes in government policies, business action, and consumer behaviour. We have continued on the path towards illuminating those significant changes ever since, with the follow-up report ‘Decoupling 2’ (2015) diving deeper into technologies, opportunities, and policy options for the transition to a decoupled economy. Our last flagship report, Global Resources Outlook 2019 (GRO19), showed the danger of continuing on our current path by highlighting the severity of resource use impacts on the triple planetary crisis, and making our current trajectories clear: unless we implement transformative actions, material use will double by 2060, with devastating consequences for people and planet. It is essential to significantly decrease the absolute amount of virgin materials used in providing well-being in particular in high-income countries.

These are alarming projections to consider as we look to IRP’s next 15 years. However, we have reason to be hopeful: we can leverage the unique assets we have already developed, our world-class scientists, network of government actors, and strong partnerships, to ensure our scientific insights lead to re-shaping of current resource use patterns. IRP already produces consolidated scientific insights on global material flows and their impacts; we are now in a position to maximize their use for decision-makers by strengthening the concreteness of links between activities along value chains and the specific impacts they cause. We can also work to ensure this data is transparent, and applicable to governments and businesses alike. Accessible, coherent data like this would be a real asset to future global governance efforts.
As we look to IRP’s future, the connection between powerful scientific insights and actionable solutions will be vital. We know that current resource use patterns are the root of the triple planetary crisis, therefore, resource use solutions will be what reverses devastating environmental projections. Solutions which unlock the potential of resources to deliver multiple benefits for humanity, providing a real hope that multiple challenges could be addressed simultaneously with well-designed policies for the developed and developing countries. IRP is working towards building understanding of deep systemic resource efficiency – going far deeper than traditional productivity improvements. A crucial next step in IRP’s contribution to systemic resource efficiency comes in the form of our next flagship report, Global Resource Outlook (GRO) 23. Here, we aim to concretely show how resource use delivers for human quality of life across the globe, going far beyond traditional economic proxies for wellbeing. This will enable us to further deepen our understanding of wellbeing decoupling: knowledge of the aspects of resource use which are really essential for human wellbeing will enable development of innovative solutions.

Through changing the way, we think about the ultimate goals of resource use, we can develop solutions to offer people better nutrition, better quality living space in well-designed neighborhoods, and streamlined green mobility systems, all with significantly decreased use of resources. We must reject the assumption that these benefits need to be resource intensive. In fact, by designing them to be less resource intensive, we have a great chance to unlock multiple positives: for example, limiting urban sprawl will not only reduce the resource requirements of the built environment, but it will also minimize the amount of time you need to sit in dense traffic on your morning commute. By maximizing these co-benefits, we have a real opportunity to bring together multiple actors and agendas who may not have previously seen eye to eye.
We, as IRP Co-Chairs, are proud that IRP’s 15th Anniversary is featured as part of Stockholm +50: we are the teenage child of our 50-year-old parent, UNEP, and like all teenage children, we are keen to encourage our parent to look to the future. We have a real chance to harness the wealth of scientific insights, and give clear, positive solutions to policymakers. We look forward to working together to make quality data for global governance, and actionable recommendations for policymakers a reality for the future. It is critical that we do this, as our window of planetary opportunity is closing fast.

Yours,
IRP Co-Chairs, Janez Potocnik and Izabella Teixeira
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 IRP’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.
Bring natural resources to the forefront of intergovernmental sustainability narratives – put forward a compelling and context specific scenario of sustainable natural resource use.

Integrate diverse agendas (climate, biodiversity, health/pollution and equity) through a resource lens, and recommend natural resource management, resource efficiency and circularity as cornerstone solutions.

Connect change agents, scientific networks, and diverse stakeholders at all levels to identify, produce, advocate and implement science-based frameworks for action.

Provide sector or system (e.g., automotives or transport) specific recommendations on how to understand systems risks and build resilience while transitioning provisioning systems to sustainability.

Be the main source of scientific information and analysis on natural resource use and associated policies as an evidence base to support transitions to sustainability and SCP.

OUR VISION FOR IMPACT IN 2022-2025
In **2022-2025**, IRP research will:

- Help improve the understanding of natural resource use.
- Connect this understanding to knowledge from other scientific bodies on relevant UN SDGs and goals of existing Multilateral Environmental Agreements.
- Provide options to enable transitions to sustainable management of natural resources.

**Understanding** natural resource use means providing the data, analytical insights and tools, and overview of the status and prospects for global stocks and flows of natural resources.

**Connecting** the knowledge on natural resource management with other relevant SDGs is about better understanding the links (drivers, synergies, impacts, trade-offs) between current global resource use and its impacts on the environment as well as human health, well-being, prosperity, and equity.

**Enabling** sustainability transitions is about understanding the role of trade, finance, innovation, and what the options are for sustainable resource management.
15 YEARS OF THE IRP IN NUMBERS

799,597
IRP’s Reports Downloads

33
Panel Members with Scientific Expertise

30
Steering Committee Members

18
Strategic Partners

41
High Impact Reports

3,552
References to the IRP’s Studies
KEY MOMENTS OF THE IRP IN 2007 - 2022

2007 Origins

On 9 November 2007, the International Expert Panel on Sustainable Resource Management (former name of the IRP) was officially launched during the World Science Forum in Budapest, Hungary. In recognizing that "the socio-economic development of our societies and well-being of the future's societies depend on the earth’s natural resources," the Panel's objective was to foster sustainable resource management, leading to the overall decoupling of economic growth and environmental degradation.

The driving forces behind the Panel's establishment were the United Nations Environment Programme (UNEP) supported by the European Commission.

2008 Joining forces

Two meetings in Rome, Italy (May) and Santa Barbara, USA (November) resulted in important decisions on the Panel’s work program, membership, and procedures, in particular for the peer-review process. Four Working Groups were brought together focusing on decoupling, prioritization, biofuels, and global metal flows.

The Panel’s Steering Committee expanded to 18 members, covering countries from five continents and a number of civil society organisations including the World Business Council on Sustainable Development (WBCSD), the International Council for Science (ICSU) and the World Conservation Union (IUCN), among others.
2009 The first report

The first report Assessing biofuels was launched. It provided a systemic assessment and science-based options for the much-debated topic of sustainable production and the use of biomass.

The Panel held a side event at the first World Resources Forum in Davos, Switzerland, contributing to the development of new economic frameworks to promote the sustainable use of resources. A presentation on material flow accounts was delivered at the 4th Meeting of the UN Committee of Experts on Environmental-Economic Accounting in New York, USA.

2010 Rising visibility

The Panel’s new report Assessing the Environmental Impacts of Consumption and Production: Priority Products and Materials made headlines in the Guardian and other major newspapers, with a call for substantial transformation in the energy and agriculture sectors.

The Panel’s critical role in the sustainability transition was increasingly acknowledged in policy fora including the 2010 OECD Global Forum on Environment: Sustainable Materials Management, which informed the implementation of the G8 Kobe 3R (Reduce, Reuse, and Recycle) Action Plan.
The “Decoupling” report (Decoupling natural resource use and environmental impacts from economic growth) was launched in 2011, laying the foundation for a decade’s research and policy action on sustainable resource management and its relationship with economic growth and human well-being.

“Decoupling growth from environmental degradation is the number one challenge facing governments in a world of rising numbers of people, rising incomes, rising consumption demands and the persistent challenge of poverty alleviation,” said Achim Steiner, UNDP Administrator and former UNEP Executive Director.

2011 Decoupling goes big

At the Rio+20 UN Conference on Sustainable Development, the Panel released Responsible Resource Management for a Sustainable World. It presented the main conclusions of five previous assessments to date. The Rio +20 final document recognized the Panel’s contribution to the science of resource efficiency and the importance of decoupling environmental degradation from economic growth for policymakers and business leaders.

The Panel attracted increasing attention from the business community. The World Economic Forum cited the IRP in their 2012 paper More with Less: Scaling Sustainable Consumption and Resource Efficiency. The International Chamber of Commerce (ICC) launched its Green Economy Guidebook and began a partnership with the IRP with the aim of improving industrial sustainability.

2012 Engagement at Rio+20
In 2013, the IRP released the assessment City-level Decoupling to prompt further resource efficiency policy action at the city level such as investing in sustainable infrastructure and green technologies. Two other assessments - Metal Recycling and Environmental Risks and Challenges of Anthropogenic Metals Flows and Cycles - shed light on the opportunities and limits of metal recycling and presented a Product-Centric, physics-based approach to Design for Recycling and Resource Efficiency for estimating opportunities and limits of recycling.

With the ambition of reaching policymakers and stakeholders at regional and national levels, the Panel hosted International Seminars on Resource Efficiency and the Decoupling Approach in Bangkok, Thailand in 2012, and in Nairobi, Kenya, and in Siem Reap, Cambodia in 2013. The Panel also cooperated with the EU to host science and policy discussions on air quality and climate change during the 2013 EU Green Week. The Panel’s work triggered a scientific effort at regional and national levels to assess material flows and resource productivity - one example is the UNEP’s 2013 assessment in Latin America and the Caribbean.

2014 marked the 1st session of the UN Environment Assembly consisting of the representatives of all UN member countries. The Assembly adopted a resolution on strengthening the science-policy interface of environmental affairs. Countries expressed appreciation for the Panel’s contributions and asked the Panel to provide knowledge on the global status and trends of natural resource use and management on a regular basis.

During that year, the IRP issued three scientific assessments. The Decoupling 2 report proposed technologies, opportunities, and policy options to accelerate decoupling and reap the environmental and economic benefits of increased resource productivity. The Assessing Global Land Use report examined the trends and impacts of global land use, and the Building Natural Capital report highlighted the potential benefits of the REDD+ initiative to ensure the well-being of millions in developing countries.
2015 Natural resources at the center SDGs

2015 marked the launch of the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) which largely focus on the sustainable management of natural resources thanks, in part, to the Panel’s active role in the United Nations General Assembly’s Open Working Group on the SDGs. The Panel launched the think piece Policy Coherence of the Sustainable Development Goals looking at resource interlinkages and potential trade-offs between the SDGs.

The IRP also contributed to several policy discourses with a natural resource perspective. The paper 10 key messages on climate change informed the landmark COP21 in Paris calling to place sustainable resource management at the center of climate action. The report International Trade in Resources assessed the implications of rapidly rising trade flows for global resource and environmental efficiency and informed the World Trade Organisation (WTO)’s work.

2016 From resource-specific studies to systematic approaches

While the Panel devoted much of its research to issues related to the use, stocks, and scarcities of specific resources such as biofuels, water, and metals, it gradually moved into examining systematic approaches to resource use, as several 2016 reports demonstrated. The report Unlocking the Sustainable Potential of Lands proposed tools to help land users assess and efficiently utilize their land potential and contributed to the China & UNCCD Joint Action initiative to combat desertification along the Silk Road. The Food Systems and Natural Resources report identified 12 ways to transform our food systems to combat hunger, use natural resources more efficiently and stem environmental damage. The Global Material Flows and Resource Productivity report showed global natural resource use trends over four decades and proposed indicators for evidence-based policy formulation.
2017 Engagement with G7, G20, and a new Global Database

Thanks in part to the Panel’s contribution, by 2017, resource efficiency was raised as a crucial topic by G7 and G20 countries. The Panel supported the development of the G7 Resource Efficiency Alliance and the five-year Bologna Roadmap outlining the next steps to advance resource efficiency.

The IRP Resource Efficiency report, developed at the request of the G7, was incorporated in the G7 summit discussion held in Japan, and subsequently, into the first meeting of the G20 Resource Efficiency Dialogue in Germany in 2017.

The authoritative Global Material Flows Database was launched providing direct and consumption-based material flow indicators for seven world regions and more than 185 countries, and serving as the official data source for monitoring progress on SDG8 and SDG12 targets.

2018 Mainstreaming circular economy

With the world’s increasing interest in circular economy and the Panel’s work, the IRP entered into new agreements with the World Economic Forum and the Ellen McArthur Foundation to support policymakers, industry, and society to manage resources sustainably.

Two major pieces of research were launched. Re-defining Value – The Manufacturing Revolution is one of the first to quantify the benefits of value-retention processes within industrial economic systems. The Weight of Cities called for a new strategy for 21st-century urbanization, advocating a transition to low-carbon, resource-efficient, and inclusive cities. The reports were discussed at the World Economy Forum, World Cities Forum, World Circular Economy Forum, G7 Environment Ministers meeting, G20 Resource Efficiency Dialogue, among others, and had a profound impact on shaping our cities and economies.
2019 The first Global Resources Outlook

In 2019, the Panel launched the first edition of its flagship report the Global Resources Outlook. Key data showed that "the extraction and processing of resources make up about half of total global greenhouse gas emissions, more than 90% of biodiversity loss and water stress, and one-third of air pollution". The report provided a clear link between unsustainable resource management and the triple planetary crisis of climate change, biodiversity loss, and air pollution; as well as evidence on sustainable resource management’s contribution to economic growth and well-being, attracting significant attention from policymakers, businesses, media and the public. Based on this research, the Panel further developed country-specific factsheets at the request of the G20 to inform national stakeholders.

In the same year, the IRP launched the Land Restoration for Achieving the Sustainable Development Goals think piece at the UNCCD COP14 in Delhi, India, and informed the 9th Trondheim Conference on Biodiversity. It also launched the Resource Efficiency and Climate Change Summary for Policymakers at the UNFCCC COP25 in Madrid, Spain, contributing to the new commitment made between UNDP and UNEP to work together to create a "template" to include resource efficiency in 100 Nationally Determined Contributions (NDCs).

2020 Well-being for all

In 2020, the world experienced an unprecedented moment. A statement from IRP Co-Chairs Janez Potočnik and Izabella Teixeira highlighted the Panel’s perspective: "The gravity of this pandemic gives us a renewed recognition of the interconnection between societies and nature. To build back better, smarter use of natural resources is key. We must shift to a new paradigm of resource use that is socially equitable, economically resilient, and environmentally healthy".

The IRP launched the piece Building resilient societies after the Covid-19 pandemic to guide policy action in building a resilient future by changing the ways we generate wealth, live, move, and eat. It also launched the Mineral Resource Governance in the 21st Century report and co-hosted a series of regional consultations, illustrating how good management in the extractive sector can help achieve the SDGs.
"Humanity is waging war on nature", warned UN Secretary-General, Antonio Guterres. The UNEP 2021 Making Peace with Nature report drew upon findings from global assessments from the IRP, IPCC, IPBES, Global Environment Outlook report, and more. It aimed to create a blueprint for a shift to circular economies and fairer societies, tackling climate change, biodiversity loss, and pollution at the start of the Decade of Action.

In this Decade of Action, with the aim of catalysing science-based policy action on sustainable consumption and production, the IRP worked with the One Planet Network at the request of the UNEA to produce a report which demonstrates the use of the Value-Chain Approach methodology in three critical sectors - food, construction, and textiles. This was done through consultations with resource stakeholders from governments, businesses, and civil societies and ultimately lead to the publication of a joint report.
In 2022, the IRP held the 29th IRP Meeting, the first in-person meeting since 2019. Participants, including scientists, government representatives, and strategic partners, came together to advance the IRP’s 2022-2025 programme of work and discuss the sustainable use and management of resources for effective action on climate change, biodiversity loss, pollution, wellbeing, and equity. Enabling just transitions, enhancing resource efficiency, addressing sufficiency, and promoting the circular economy were some of the key themes discussed at the meeting.

In 2022, the IRP also co-organized several side events at the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change – UNFCCC COP27. At these side events, the IRP Co-Chairs Janez Potočnik and Izabella Teixeira delivered important messages from IRP’s research: That the unsustainable use of natural resources, in particular by high-income countries, lies at the heart of the triple planetary crisis of climate change, biodiversity loss and pollution and waste. Resource efficiency and circular economy solutions are central to solutions for the triple planetary crisis. Climate goals cannot be achieved without urgent action to transform how we use and manage natural resources to deliver wellbeing.
IRP's Impact and Uptake in Snapshots

(Click each title of the events for more details)

- UN Environment Assembly Resolutions and Declarations
- Zero Waste Masterplan Singapore
- Communique of the G20 Ministerial Meeting
- Joint Ministerial Statement of the Green Group at the COP25
- Project of Productivity Strategy 2030
- CEO Guide to the Circular Bioeconomy
- The Future of Nature and Business
- European Green Deal
- New Circular Economy Action Plan
- Draft Policy Statement on Mineral Exploration and Mining
- Supporting the Global Biodiversity Agenda, A UN System Commitment
- Circular Economy in Latin America and the Caribbean
- Global Land Outlook Second Edition
- 2021 National Recycling Strategy
- Declaration on a Resilient and healthy Environment for All
- Towards a joint implementation of the 2030 Agenda
THE IRP'S 15TH ANNIVERSARY SURVEY

The answers were collected from the survey participated by the IRP's panel members in October 2022

What do you think has been the biggest contribution of the IRP to the global sustainability agenda?

- Outstanding report focused on important issues.
- Raising awareness of the crucial role of natural resource management.
- Having an integrated and trustworthy vision about the challenges and policies to manage natural resources in a sustainable way.
- Addressing the natural resource questions which are to a large extent absent from the policy world.
- The concerted push of the decoupling discourse.
- Highlight material resources and their role in achieving SDGs.
- The IRP’s research stressing that resource efficiency and reduction is one of the most powerful levers to reach the UN sustainable developmental goals.
Providing concrete policy menus at global, regional and (upon request) national levels.

Gain more presence in the public agenda of most countries and communicate directly to civil social organizations and people.

Helping to accelerate the just energy and materials transition.

Produce policy-relevant, scientifically sound work that addresses issues of major policy concern to do with resources.

By daring to point out the need for ‘other’ sectors to change because of resource concerns (food, mobility, housing).

Scientific base for global and national policy improvements.

Combine empirical analysis, scenario modelling, and policy/social science to an integrated understanding of how to achieve a transition.

In one sentence, share one way that you think the IRP can have the most impact on the global sustainability agenda in future.
Use three words to describe what you think makes the IRP successful.
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