

Committee of Permanent Representatives
Briefing by the Secretariat
Tuesday 17 October 2017
United Nations Office at Nairobi Gigiri

Briefing note on the International Resource Panel (IRP)

Background

The International Resource Panel was launched by the United Nations Environment Programme (UN Environment) in 2007 to build and share the knowledge needed to improve our use of resources worldwide. The Panel's mission is: (i) 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; and (ii) to contribute to a better understanding of how to decouple economic growth from environmental degradation to reduce overconsumption, waste and ecological harm and lead to a more prosperous and sustainable future.

The Panel consists of eminent scientists, highly skilled in resource management issues. Their reports distill the latest scientific, technical and socio-economic findings around global resource use. The Panel provide advice and connections between policymakers, industry and the community on ways to improve global and local resource management.

The independence of the Panel is ensured by means of a rigorous external peer review process of all products being developed by the Panel, and by a broad funding base. At present, the Steering Committee includes around 30 countries (including the European Commission) of which 12 provide direct financial support.

Current status and recent achievements

The Panel has, over the past 10 years, delivered a large number of path-breaking reports, which have formed the basis for policy debate in many fora. Recently, the Panel has addressed a request from the second session of the UN Environmental Assembly (Resolution 2/8), to make available reports on the state, trends, and outlook of sustainable consumption and production, and to prepare a global assessment on natural resource use and management in the context of sustainable consumption and production, to be submitted to the Fourth Session of the United Nations Environment Assembly in 2019. As a basis for this report, the International Resource Panel will provide an interim one at the third session of the UN Environmental Assembly.

Additionally, the Group of 7 (G7) have requested the Panel to contribute intellectual work on the linkages between resource efficiency and economic growth. A report on this topic was presented to the G7 at the end of 2016 and to the Group of 20 (G20) early in 2017. The Panel's reports in this area have supported the development of the G7 Resource Efficiency Alliance, and led the G7 to request further analysis linking resource efficiency to climate change mitigation policy, in order to strengthen knowledge sharing around resource efficiency and

climate policy. Both these reports, as well as all other Panel reports outlined in the Annex I, can be downloaded via www.resourcepanel.org

Finally, it is important to note that an upcoming meeting of the G20 in Berlin will also focus on resource efficiency, thanks, in part, to the strong contributions of the Panel in bringing the scientific evidence into the policy arena.

The way forward: 2018-2021 Strategy

The 2018-2021 strategy focuses on four clusters of activity for the next four years:

1. **Current trends and future prospects for global resource use and sustainable resource management** – providing insight into trends in resource use across regions, tracking improvements and fostering growth in circularity of material use, supporting the global monitoring of the resource element of sustainable development goals;
2. **Sustainable resource management within the global climate change agenda** – providing insight on the two-way interaction between climate change mitigation and sustainable resource management – particularly understanding the potential contribution of sustainable resource management to the 2 degrees target, and insight for policy and action to enhance mutual benefits and avoid potential conflicts between these two objectives;
3. **Socioeconomic implications of the transition to more resource efficient economies and societies** – providing insight on the positive, negative and distributional effects of sustainable resource management (both consumption and production) on human development indicators particularly jobs / livelihoods, to strengthen the link between sustainable consumption and production and other sustainable development goals and provide insight to policymakers on mitigating negative effects and enhancing positives;
4. **Sustainable resource management links to conflict, security and migration** – building and maintaining a strong position for sustainable resource management in global and regional political fora and national governments, by building the evidence base and case linking it to this global policy priority.

A key transversal element is a discussion on engaging the private sector in the Panel's scientific and policy results. Further work on modelling and scenario development of resource efficiency will be central to describing what resource efficiency can contribute in environmental, social and economic terms. This analytical work will also underpin and enable reporting on the Sustainable Development Goals, as well as the regular reporting on global trends in resource use as an input to the UN Environment Assembly.

In conclusion, the International Resource Panel has gained a strong reputation for impartial, scientific analysis of the key resource use and management issues of our times. It is the goal of UN Environment to further strengthen and deploy the panel as key element of the science-policy interface, and in particular, informing how resource efficiency can help in meeting the Sustainable Development Goals and the Paris climate agreement.

Annex I: On-going work streams and published reports

All reports available at: www.resourcepanel.org

On-going (titles are working titles)

Mineral Resource Governance (to be published 2018/2019)

Report on the governance elements which could lead to more sustainable resource extraction. Elaboration of a 'Sustainable License to Operate' concept.

Marine Resources (to be published 2018)

A look at impact of coastal mining and aquaculture.

Remanufacturing (to be published 2018)

A look at the potential for remanufacturing of industrial products to increase resource efficiency. Work which include significant original data collection.

Cities II (to be published 2018)

A deeper look at some of the elements covered in the first cities report from 2013, including better data, and better global coverage.

Land restoration (think piece 2017/2018)

Originally the intention was to develop a full report on land restoration issues, but due to limited capacity of the Panel only a shorter scoping document will be developed. This may, however, feed into further work in the next strategy period.

Regular Report (to be published 2017)

Second session of the UN Environmental Assembly requested via resolution 2/8 a reporting on trends and outlook for natural resource use at the global level. This report is the first in what is expected to become a series of reports on trends based partly on a global material flows database.

Published

Green Technology Choices (2017)

The Environmental and Resource Implications of Low-Carbon Technologies

What happens when low-carbon electricity supply technologies are deployed alongside energy efficiency technologies? The International Resource Panel's assessment looks at the impacts and benefits for people and the environment.

Resource Efficiency (2016/2017)

Potential and Economic Implications

This report analyzes four paths that countries could take over the next three decades, ranging from business as usual to a scenario where countries adopt both ambitious climate policies and improve resource efficiency. It finds that smarter use of resources can add \$2 trillion annually to the global economy.

Global Material Flows and Resource Productivity (2016)

Assessment Report for the UNEP International Resource Panel

Growing concern about assuring affordable, equitable and environmentally sustainable access to natural resources is well founded. In this report we show global natural resource use trends and propose indicators for evidence-based policy formulation.

Unlocking the Sustainable Potential of Land Resources: (2016)

Evaluation Systems, Strategies and Tools

Land resources are one of nature's most precious gifts. They feed us and help our societies and economies to thrive. This report examines how to better evaluate and use the potential of land on the way to achieving land degradation neutrality.

Food Systems and Natural Resources (2016)

Food systems depend on natural resources. But population growth, and dietary changes due to growing wealth, are creating pressures on those resources. Transforming our food systems is required if we are to meet future demands.

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

Low-carbon electricity generation could help meet demand while reducing climate change. But new technologies could create new environmental problems. This report aids informed decision-making about energy technologies, infrastructure and optimal mix.

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

A report of the Water Working Group of the International Resource Panel

To head off a looming water crisis, meet demand, and sustain growth and human wellbeing, decoupling water from economic growth is essential. The report shows a package of policy and practical responses to aid aspirations for water sustainability.

10 Key Messages on Climate Change (2015)

This note draws on the findings of the United Nations' expert panel on natural resources – the International Resource Panel – to highlight some key policy-relevant messages on how sustainable management of natural resources can contribute to global efforts to combat climate change.

International Trade in Resources (2015)

A biophysical assessment

International trade is indispensable for countries to meet demand for resources not available, accessible or affordable domestically. This report looks at implications of rapidly rising trade flows for global resource and environmental efficiency.

Policy Coherence of the Sustainable Development Goals (2015)

A Natural Resource Perspective

Decoupling 2 (2014)

Technologies, Opportunities and Policy Options

This report explores technological possibilities and opportunities for both developing and developed countries to accelerate decoupling and reap the environmental and economic benefits of increased resource productivity.

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

This report, on the status and future potential of REDD+, describes the benefits of forests and other ecosystems as a way of demonstrating that forests have multiple values beyond carbon sequestration and are a foundation for sustainable societies.

Assessing Global Land Use (2014)

Balancing Consumption with Sustainable Supply

This report examines the impacts of global trends - population growth, urbanization, changes in diets and consumption behaviours - on global land use, considering biodiversity, the supply of food, fibre and fuel, and resource security.

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

Metal production is responsible for 7-8% of global energy use as well severe environmental impacts. Recycling would decrease both, but even if recycling increased, rising global demand for many metals would remain a huge environmental challenge.

Metal Recycling (2013)

Opportunities, Limits, Infrastructure

A global move to a Product-Centric approach, in which recycling targets specific components of a product and devises ways to separate and recover them, is essential. This report addresses the challenges of recycling increasingly complex products.

City-Level Decoupling (2013)

Urban Resource Flows and the Governance of Infrastructure Transitions

Most resource consumption takes place in cities. How a city is designed shapes how its inhabitants use transport, energy and water, and dispose of waste. The challenge is to build vibrant cities with reduced resource use and environmental impacts.

Measuring Water Use in a Green Economy (2012)

How do we meet the water, energy, land and material needs of up to 9 billion people, while keeping climate change, biodiversity loss and health threats within planetary boundaries?

Responsible Resource Management for a Sustainable World (2012)

Findings from the International Resource Panel

This report brings together highlights of five previous reports to enable policy-makers and business leaders to begin decoupling economic activity from resource use to allow the global economy to operate within the limits of the Earth's resources.

Recycling Rates of Metals (2011)

A Status Report

Recycling rates of metals are far lower than potential for reuse. Less than one-third of 60 studied have a recycling rate above 50 per cent, though many are crucial to clean technologies such as batteries for hybrid cars or magnets in wind turbines.

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

Using less resources and reducing the environmental impact

We are using unsustainable amounts of the Earth's natural resources. We need to improve the rate of resource productivity ("doing more with less") faster than the economic growth rate. This is the notion behind "decoupling".

Metal Stocks in Society (2010)

A Scientific Synthesis

A key question that relates to the very broad and intensive use of metals is whether society needs to be concerned about long-term supplies of any or many of them. To examine this question, this reports reviews 54 studies on the topic.

Assessing the Environmental Impacts of Consumption and Production (2010)

Priority Products and Materials

This report gives a scientific assessment of which global environmental problems present the biggest challenges, and weighs up the impacts of various economic activities to identify priorities for change.

Assessing Biofuels (2009)

Towards Sustainable Production and Use of Resources

This report provides a robust assessment of key problems of production and use of biomass for energy purposes and options for more efficient and sustainable production and use of biomass.

Annex II: Panel members

	Name	Country	Gender	Role in Panel
1.	Janez Potocnik	Slovenia	M	<u>Current involvement:</u> Co-Chair
2.	NN – name to be made public following signing of nomination letter		F	<u>Current involvement:</u> Co-Chair
3.	Ashok Khosla	India	M	<u>Current involvement:</u> WG member: Regular Report WG member: Land restoration <u>Past involvement:</u> Former Co-Chair Coordination of International Resource Panel’s inputs to the SDGs process Contributing author: Main Messages on Climate Change
4.	Edgar Hertwich	Austria	M	<u>Current involvement:</u> Contributing author: Energy efficiency WG Member: Regular Report Contributing Author: Resource Efficiency <u>Past involvement:</u> Lead Author: Green Energy Choices Chair of WG: Environmental Impacts of Products and Materials Lead Author: Priority Products and Materials Peer Review Coordinator: Trade
5.	Marina Fischer-Kowalski	Austria	F	<u>Current involvement:</u> WG Member: Regular Report Contributing Author: Resource Efficiency <u>Past involvement:</u> Contributing Author: Global Material Flows Lead Author: Trade Lead Author: Decoupling I Peer review Coordinator: Biofuels
6.	Mark Swilling	South Africa	M	<u>Current involvement:</u> Lead Author: Cities II WG member: Resource governance Contributing Author: Resource Efficiency <u>Past involvement:</u> Lead Author: Decoupling I Lead Author and coordinator of WG: Cities I Lead Author: Land and Soils I
7.	Stefan Bringezu	Germany	M	<u>Current involvement:</u> Co-chair of WG: Regular Report Contributing Author: Resource Efficiency <u>Past involvement:</u>

				Lead Author: Biofuels Lead Author: Land and Soils I Contributing Author: Land and Soils II
8.	Thomas Graedel	USA	M	<u>Current involvement:</u> Lead Author: Integrated Scenarios Analysis Contributing Author: Resource Efficiency <u>Past involvement:</u> Chair of WG: Sustainable Metal Flows Lead Author: Metals Stocks Lead Author: Metals Recycling Rates
9.	Maarten Allard Hajer	The Netherlands	M	<u>Current involvement:</u> Co-chair of WG: Cities II Contributing Author: Resource Efficiency <u>Past involvement:</u> Chair of WG: Food Systems and Natural Resources Peer review coordinator: Decoupling 2 WG Member: Cities
10.	Ester van der Voet	The Netherlands	F	<u>Current involvement:</u> Contributing author: Integrated Scenarios Analysis WG Member: Regular Report Contributing Author: Resource Efficiency <u>Past involvement:</u> Instructor of the “Wheels of Metals” MOOC Peer Review Coordinator: Green Energy Choices Lead Author: Priority Products and Materials Lead Author: Environmental Risks and Challenges of Anthropogenic Metals Flows and Cycles
11.	Patrice Christmann	France	M	<u>Current involvement:</u> WG Member: Resource Governance <u>Past involvement:</u> WG Member: Metals Peer review coordinator: Recycling Opportunities
12.	Jeff Herrick	USA	M	<u>Current involvement:</u> WG member: Land restoration WG member: Regular Report <u>Past involvement:</u> Lead Author: Land and Soils I Lead author: Land and soils II WG member: REDD+
13.	Paul Ekins	United Kingdom	M	<u>Current involvement:</u> Lead Author: Resource Efficiency Co-Chair of WG: Resource Governance WG Member: Regular Report <u>Past involvement:</u> Cross-cutting: Economics Contributions to trade report
14.	Yonglong Lu	China	M	<u>Current involvement:</u>

				WG member : Marine resources <u>Past involvement:</u> Peer review coordinator: Land and soils II
15.	Gete Zeleke	Ethiopia	M	<u>Current involvement:</u> WG member: Land restoration <u>Past involvement:</u> Contributing Author: Land and Soils II WG member: Food
16.	Heinz Schandl	Austria	M	<u>Current involvement:</u> WG member: Regular Report Contributing Author: Resource Efficiency <u>Past involvement:</u> Lead Author: Global Material Flows Modelling for the Resource Efficiency: Potential and Economic Implications Contributing author: Trade
17.	Elias Ayuk	Cameroon	M	<u>Current involvement:</u> Co-chair of WG: Resource governance WG Member: Regular Report <u>Past involvement:</u> Peer review coordinator: Food report
18.	Michael Obersteiner	Austria	M	<u>Current involvement:</u> WG Member: Regular Report WG member: Land restoration Contributing Author: Resource Efficiency <u>Past involvement:</u> Lead author: Policy Coherence of SDGs
19.	Anuradha Ramaswami	India/USA	F	<u>Current involvement:</u> Co-chair of WG: Regular Report Contributing author: Cities II Contributing Author: Resource Efficiency
20.	Nabil Nasr	USA	M	<u>Current involvement:</u> Lead Author: Circular economy and remanufacturing Contributing Author: Resource Efficiency
21.	Anders Wijkman	Sweden	M	<u>Current involvement:</u> WG Member: Regular Report
22.	John Ingram	United Kingdom	M	<u>Current involvement:</u> WG Member: Regular Report WG member: Land Restoration Contributing Author: Resource Efficiency <u>Past involvement:</u> Lead Author: Food Systems report
23.	Erinç Yeldan	Turkey	M	<u>Past involvement:</u> Peer review Coordinator: Global Material Flows
24.	Porfirio Alvarez Torres	Mexico	M	<u>Current involvement:</u> WG member : Marine resources

25.	Seiji Hashimoto	Japan	M	<u>Current involvement:</u> Peer review coordinator : Energy efficiency report Contributing Author: Resource Efficiency <u>Past involvement:</u> WG Member: Metals
26.	Margaret Kamar	Kenya	F	<u>Current involvement:</u> WG member: Land Restoration
27.	Antonio Pedro	Mozambique	M	<u>Current involvement:</u> Co-chair of WG: Resource Governance
28.	Hans Bruyninckx	Belgium	M	<u>Current involvement:</u> WG Member: Regular Report
29.	S. Vijay Kumar	India	M	<u>Current involvement:</u> WG member: Resource Governance WG member: Land Restoration
30.	Hezri Adnan	Malaysia	M	<u>Current involvement:</u> Peer review coordinator: Resource Efficiency
31.	Bruno Oberle	Switzerland	M	<u>Current involvement:</u> Co-chair of WG: Resource Governance WG Member: Regular Report
32.	Stefanie Hellweg	Germany/ Switzerland	F	<u>Current involvement:</u> WG Member: Regular Report WG member: Land Restoration
33.	Anthony Chiu	Philippines	M	<u>Current involvement:</u> WG Member: Regular Report
34.	Tanya Abrahamse	South Africa		<u>Current involvement:</u> WG member: Land Restoration
35.	Serge Salat	France		<u>Current involvement:</u> Contributing author: Cities II WG Member: Regular Report
36.	Stephen Fletcher	United Kingdom		<u>Current involvement:</u> Chair of WG: Marine

Annex III: Steering Committee members

<u>COUNTRY/ORGANIZATION</u>
ARGENTINA (Republic of Argentina)
BELGIUM
CHILE (Republic of Chile)
CHINA (People's Republic of China)
COLOMBIA (Republic of Colombia)
EUROPEAN COMMISSION (EC)
FINLAND (Republic of Finland)
FRANCE (French Republic)
GERMANY (Federal Republic of Germany)
INDIA (Republic of India)
INDONESIA (Republic of Indonesia)
ITALY (Italian Republic)
JAPAN
KAZAKHASTAN (Republic of Kazakhstan)
KENYA (Republic of Kenya)
MALAYSIA
MEXICO (United Mexican States)
NORWAY (Kingdom of Norway)
PERU (Republic of Peru)
PHILIPPINES (Republic of Philippines)
RUSSIA (Russian Federation)

SOUTH AFRICA
(Republic of South Africa)

SWEDEN
(Kingdom of Sweden)

SWITZERLAND
(Swiss Confederation)

TANZANIA
(Republic of Tanzania)

THE NETHERLANDS
(Kingdom of the Netherlands)

TUNISIA
(Tunisian Republic)

UNITED STATES OF AMERICA
(USA)

VIETNAM
(Socialist Republic of Vietnam)