NATURAL RESOURCES FOR THE FUTURE WE WANT
OUTLINE

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An independent scientific Panel hosted by the United Nations Environment Programme created in 2007 to contribute to a better understanding of sustainable development from a natural resources perspective.
The Panel proposes policy solutions to problems posed by resource depletion and misuse to high level policy audiences.
GLOBAL RESOURCES OUTLOOK 2019
NATURAL RESOURCES FOR THE FUTURE WE WANT

UN Environment
International Resource Panel

SUMMARY FOR POLICYMAKERS

REPORT LAUNCHED 12TH MARCH 2019
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Why a Global Resources Outlook?

Formal Reason
In 2016, UNEA-2 Resolution 2/8 on SCP invited the International Resource Panel to make available reports relevant to the resolution, including on the state, trends and outlook of sustainable consumption and production, to a future meeting of the UNEA, but not later than 2019.

Resources are the (missing) link connecting climate change, biodiversity loss, pollution ... to economic activity.

Only by putting resources at the center of our attention we can solve many challenges we face.
SDGs DIRECTLY DEPENDENT ON NATURAL RESOURCES
Global Resources Outlook 2019

✓ **Global status and trends** on natural resources (metals, non-metallic minerals, fossil fuels, biomass, water, land).

✓ **Environmental, economic and social impacts** from current and future use of natural resources

✓ **Projections by 2060** on natural resource use and impacts under two scenarios: ‘Historical Trends’ and ‘Towards Sustainability’

✓ **Policy recommendations** for economically attractive and technologically viable action to achieve sustainability goals.
Resources provide the **foundation** for the goods, services and infrastructure that make up our current socio-economic systems.

- **Biomass** (wood, crops, including food, fuel, feedstock and plant-based materials)
- **Fossil fuels** (coal, gas and oil)
- **Metals** (such as iron, aluminum and cooper...)
- **Non-metallic minerals** (including sand, gravel and limestone)
- **Land**
- **Water**
The use of natural resources has more than tripled from 1970, and continues to grow.

92 billion tons of global extraction

12.2 tons materials demand per capita

Myth: Technological advancement is making the global economy more resource efficient.

Fact: Some (high-income) countries are becoming much more efficient but global productivity has not improved in the last 20 years.
Historical and current patterns of natural resource use are resulting in increasingly negative impacts on the environment and human health.

- 90% of global biodiversity loss and water stress
- 50% of global climate change impacts
- 11% of global species loss
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- 50% of global climate change impacts
- 90% of global biodiversity loss and water stress
- 11% of global species loss
The use of natural resources and the related benefits and environmental impacts are unevenly distributed across countries and regions.

The per capita material footprint from high-income countries is:

- 60% higher than the upper-middle-income group
- 13x the level of the low-income groups.

The per capita environmental impacts high-income countries is:

- 3-6x those of the low-income groups.
The use of natural resources and the related benefits and environmental impacts are unevenly distributed across countries and regions.

Rise of the upper-middle-income nations

56% of the global share of domestic material consumption in 2017

Higher per capita material consumption than the high-income group as of 2012

Practically no change for low income countries despite needing it the most.
The use of natural resources and the related benefits and environmental impacts are unevenly distributed across countries and regions.

Two Key Drivers of Middle-Income Resource Use Growth

**New infrastructure** buildup in developing countries

**Outsourcing** of material & resource intensive production from high-income countries

**High-income** countries still dominate material footprints per capita
Without urgent and concerted action, rapid growth and inefficient use of natural resources will continue to create unsustainable pressures on the environment.
The decoupling of natural resource use and environmental impacts from economic activity and human well-being is an essential element in the transition to a sustainable future.
Achieving **decoupling** is possible and can deliver substantial social and environmental benefits, including repair of past environmental damage, while also supporting **economic growth** and human well-being.
Towards Sustainability scenario assumptions

<table>
<thead>
<tr>
<th>Resource Efficiency</th>
<th>Climate Mitigation and Removal</th>
<th>Landscape and Biodiversity Protection</th>
<th>Shifts in Societal Behavior: Healthy Diets and Reduced Food Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in materials use in manufacturing and construction through innovation, increased demand and recycling</td>
<td>Bio-sequestration and carbon dioxide removal technologies</td>
<td>Bio-diversity in bio-sequestration solutions, reducing crop-based biofuels and limiting agricultural land</td>
<td>Halving the current meat consumption (less in regions of low-meat diets) and halving food waste by 2050</td>
</tr>
<tr>
<td>Assumed policies incl. regulations, technical standards, public procurement, shifts in taxation</td>
<td>Assumed policies: Support of innovations through public investments, carbon levy for the financing of carbon sinks</td>
<td>Assumed policies: biodiversity conditions on GHG sequestration sinks, and policies to conserve native vegetation and key biodiversity areas</td>
<td>Assumed policies: Including public education</td>
</tr>
</tbody>
</table>
Historical Trends
Projected 2060 compared to 2015 levels in absence of urgent and concerted action

- Global material extraction: more than doubles
- Greenhouse gas emissions: increases by 43%
- Area of agricultural land: increases by more than 20%
- Global pasture land: increases by 25%
- Forests: reduces by over 10%
- Other natural habitat: reduces by around 20%

Towards Sustainability
Projected 2060 levels “Towards Sustainability” in comparison to “Historical Trends”

- Global GDP: US$ 233 trillion, 8% above Historical Trends
- Global material extraction: 25% lower than Historical Trends
- Greenhouse gas emissions: decrease by 90%
- Area of agricultural land: 9% less than Historical Trends
- Global pasture land: 30% less than Historical Trends
- Area of forest and other natural habitat: increases by 11%
Growth rates in emerging and other developing economies must be balanced by absolute reductions in resource use in developed countries.
Growth rates in emerging and other developing economies must be balanced by absolute reductions in resource use in developed countries.
Towards Sustainability can achieve a 90% reduction in Greenhouse Gas Emissions by 2060.
Towards Sustainability can achieve a 30% reduction in global pasture land compared to Historical Trends and by 2060.
Towards Sustainability can achieve a 9% reduction in global agricultural land compared to Historical Trends and by 2060.
Towards Sustainability can increase forests and other habitats by 11% by 2060.
Policy and decision makers have tools at their disposal to advance worthwhile change, including transformational change at local, national and global scales.

Integrating natural resource legislation with biodiversity and climate policies.

National targets and global resource targets are needed for effective policy and decision making.

Incentives for waste management and recycling, extended product life cycles and intelligent design and removing barriers to adopting circular measures.

Industrializing countries can bypass resource intensive development pathways through leapfrogging.
International exchanges and cooperation can make important contributions to achieving systemic change.

Cooperation and information sharing with other global assessments for science based solutions

Exchange experiences and best practices through communities of practice and working groups

Synergistic approaches to international obligations

Global debate at high-level regional and global forums
Thank you!

Read the report: [www.resourcepanel.org/reports/global-resources-outlook](http://www.resourcepanel.org/reports/global-resources-outlook)

Questions around the report or interest to engage within the IRP? resourcepanel@unep.org

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The *Implications for Business Leaders* is based on the GRO and inputs from IRP Strategic Partners in the private sector and their members.
Implications for Business Leaders report highlights and contextualizes GRO key findings for business-oriented decision makers.

01 A new perspective: smart resource management for inclusive growth

02 A better science base is now available: key insights into global resource flows and their impacts

03 Making decoupling a reality: business and policy must target systemic actions

The IBL also offers a synthesis of the GRO 2019 Key insights per material.
Smart resource management can target today’s complex challenges systemically and cost-effectively—and achieve inclusive growth

Disruption is ahead. It is time to shift away from traditional strategy setting based on extrapolation of historical trends to “embracing decoupling”:

- Save costs and build resilience to increasing resource price volatility and regulatory risks
- Create new customer value and unlock new growth through resource-smart innovations, better services and building trust
- Shape an economy that can deliver prosperity beyond 2030
Strategic decision-making must be based on a deep understanding of resource-related risks and opportunities.

The Global Resources Outlook 2019 provides better understanding of:

- Global resource flows and implications: extraction, consumption and trade
- The impacts of resource use and their distribution
- Scenarios for our future – and decoupling as the viable avenue for continued and inclusive growth
Achieve the SDGs through concerted SCP measures: Boost the economy by 8%, converge incomes, and reduce environmental dangers

The GRO provides new scenarios

- **Towards Sustainability**
  - Resource efficiency and innovation are key tools to achieve economic development while reducing climate change, biodiversity and health dangers

- **Historical Trends**
  - Continuing past economic trends would more than double global material use to 190 billion tonnes by 2060
  - This would quickly exceed the planetary boundaries and prevent achieving the SDGs

Note: Greater gains are possible – large potential e.g. in the circular economy (not fully modelled in the scenario yet)
Making decoupling a reality: Start the transition to decoupled business success

Create a **vision of decoupled value creation** of your business, its value chain and markets

Get **inspired by frontrunners** and learn from good and bad examples

Start **immediately feasible innovations** in sourcing, design, production and marketing

Pursue **longer-term system strategies** to create circular markets and strengthen your competitive advantage
Enable the deep transition: Build coalitions and engage with policy making to create decoupled markets

Collaboration across sectors and value chains can:

- Develop systemic visions and amplify ambition
- Share learnings and accelerate innovation
- Shape markets and educate consumers
- Share or de-risk investments and support scaling
- Engage with policy making to ensure fairness and support to the transition

Policy making with a systems approach is crucial to enable the decoupling transition.
The IBL offers a selection of case studies of resource-smart business models and suitable coalition models to spur the systemic transition

“Through science-based analysis, targeted case studies and actionable recommendations, this report provides critical insights for business leaders in developing more sustainable resource management practices.”

John W.H. Denton AO, Secretary General, International Chamber of Commerce
Additional Feature: The IBL offers a synthesis of the GRO key insights per material.
Implications for Business Leaders

GLOBAL RESOURCES OUTLOOK 2019

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