



GLOBAL RESOURCES OUTLOOK

2019

NATURAL RESOURCES FOR THE FUTURE WE WANT



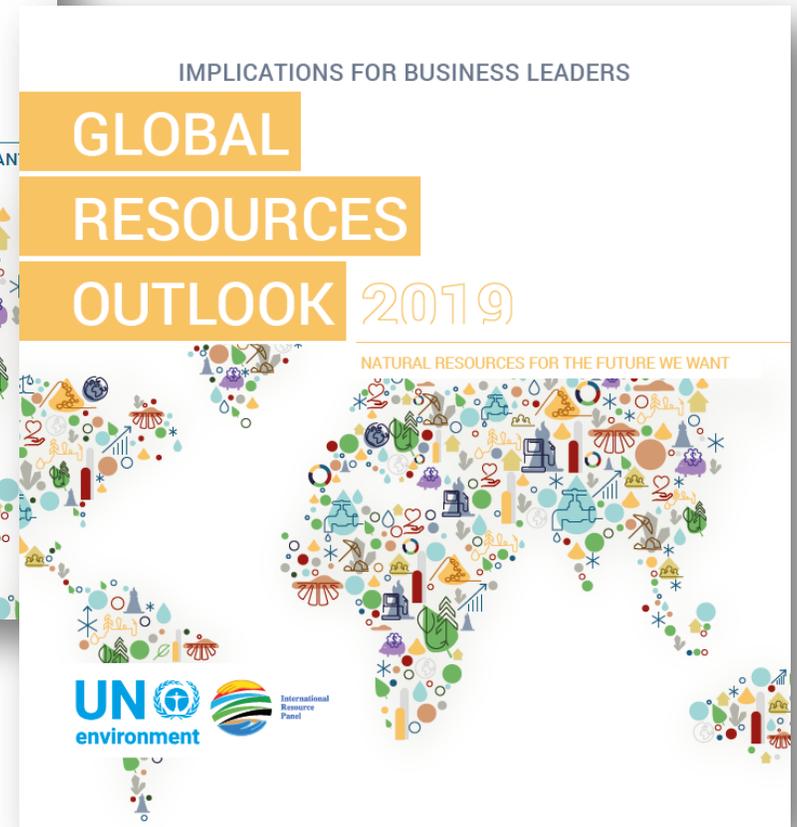
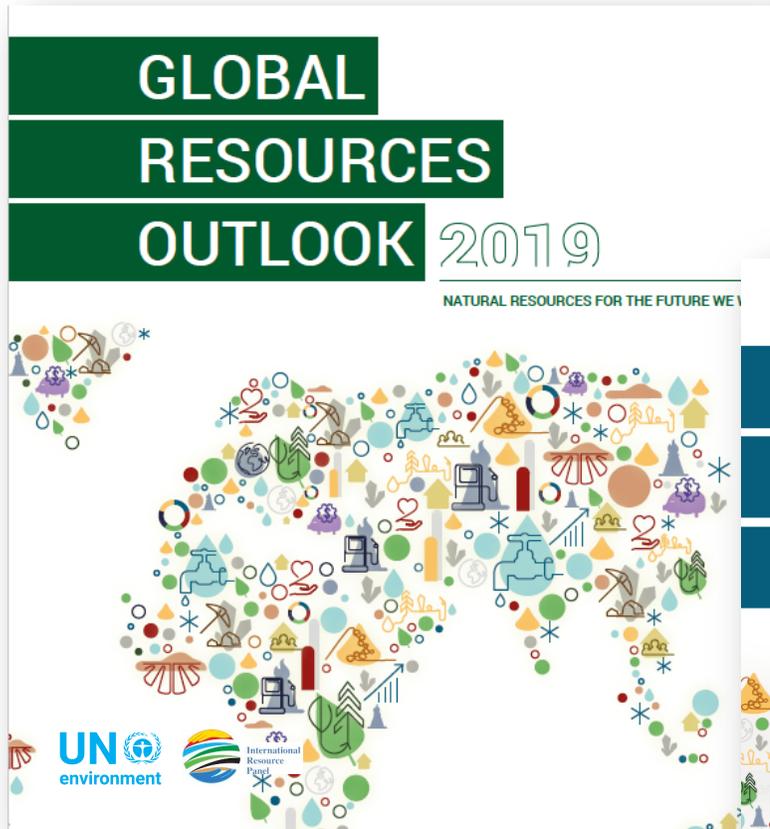
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**Report launched 12th March
2019**

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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**.

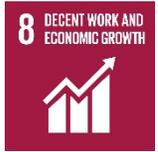
Resources are the (missing) **link** connecting climate change, biodiversity loss, pollution ... **to economic activity**.

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.

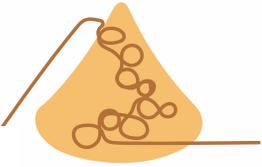


Resources provide the foundation for the goods, services and infrastructure that make up our current socio-economic systems



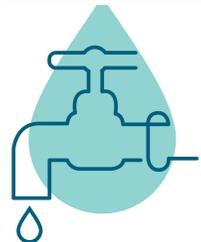
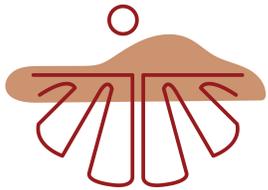
- **Biomass** (wood, crops, including food, fuel, feedstock and plant-based materials)

- **Fossil fuels** (coal, gas and oil)



- **Metals** (such as iron, aluminum and copper...)

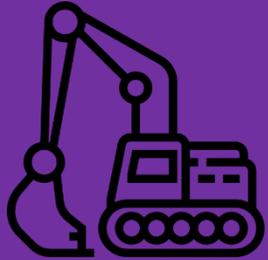
- **Non-metallic minerals** (including sand, gravel and limestone)



- **Land**

- **Water**

The **USE** of natural resources has more than **tripled** from 1970, and **continues to grow**

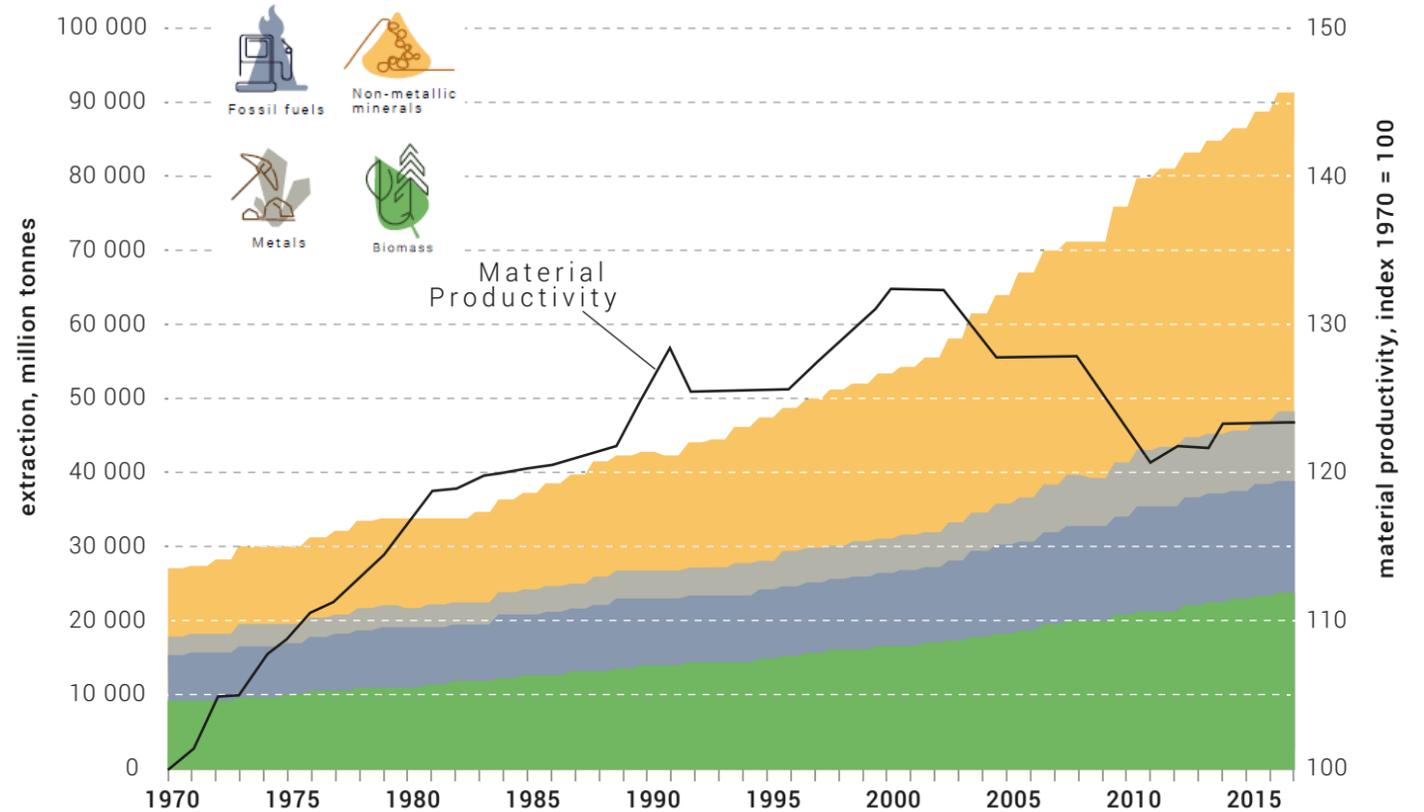


92 billion tons of global extraction



12.2 tons materials demand per capita

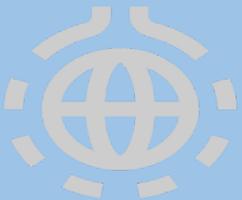
Global material extraction and material productivity, 1970 - 2017



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

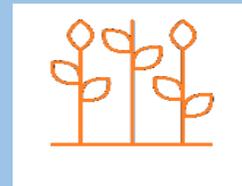
Historical and current patterns of natural resource use are resulting in increasingly negative impacts on the environment and human health



50% of global climate change impacts

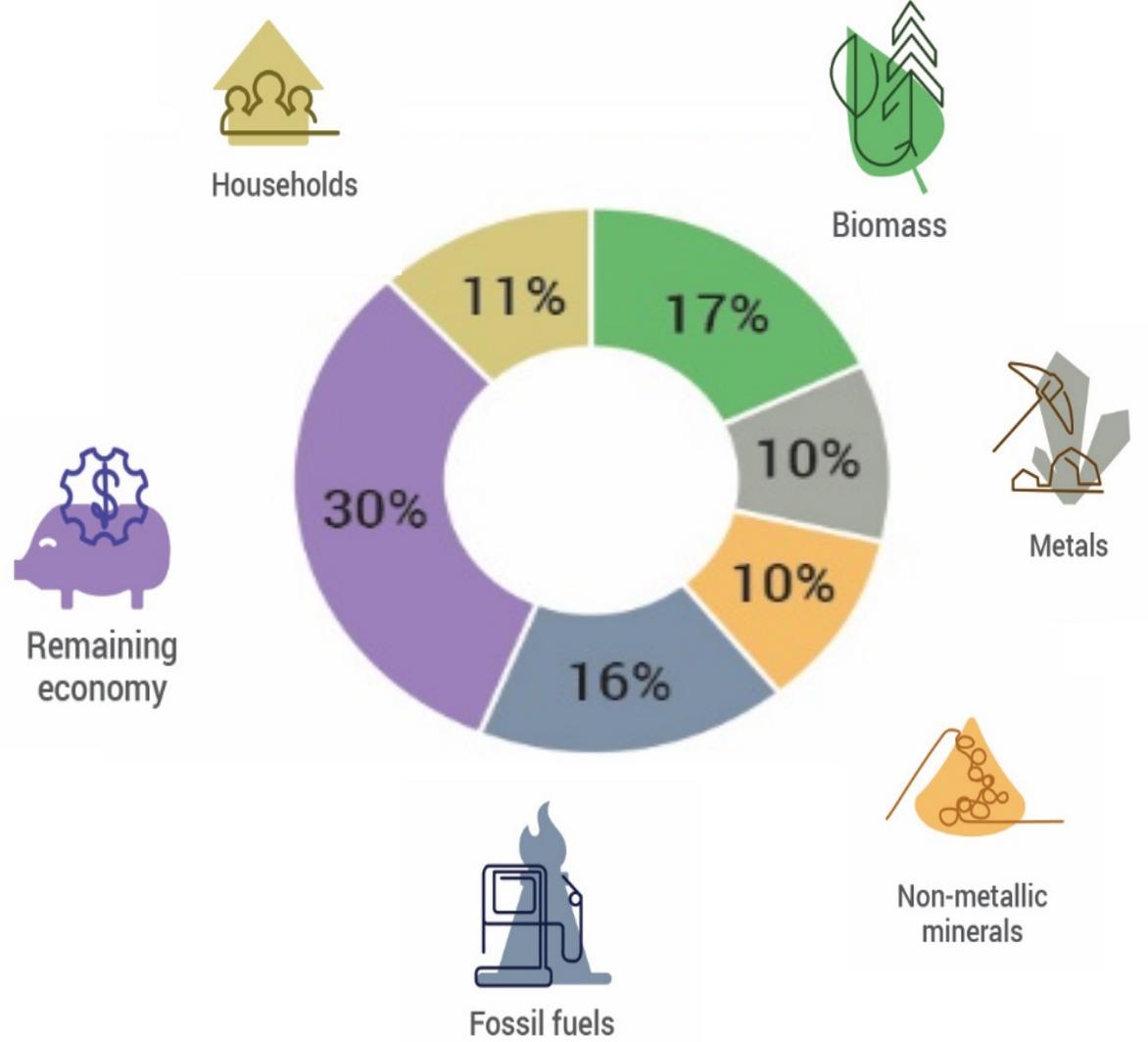


90% of global biodiversity loss and water stress

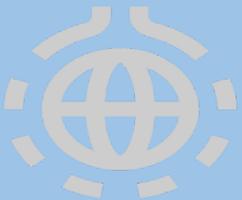


11% of global species loss

Climate change impacts



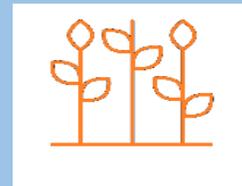
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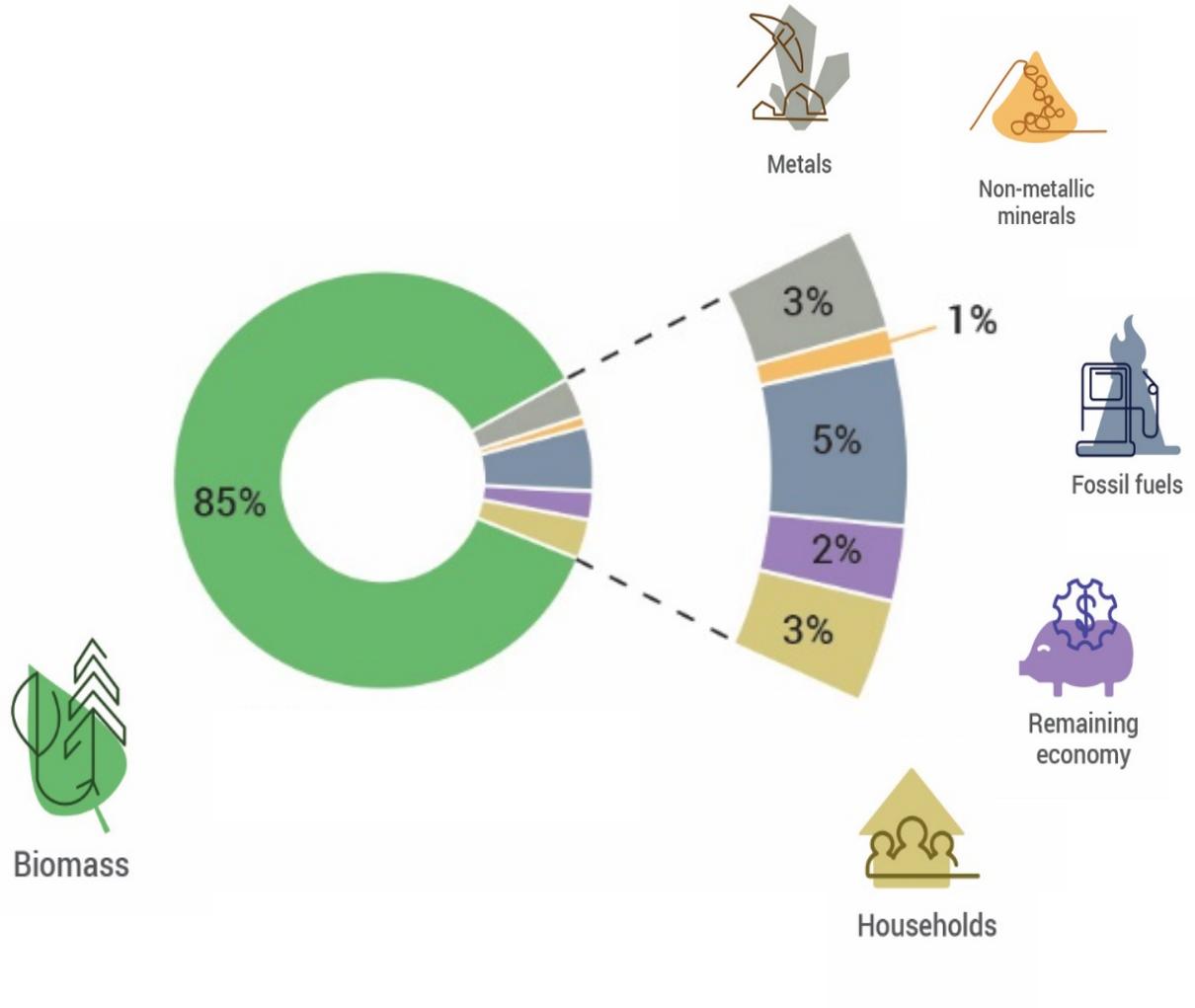


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11% of global species loss

Water Stress Impacts



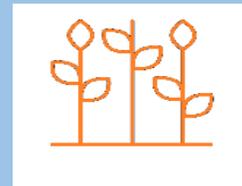
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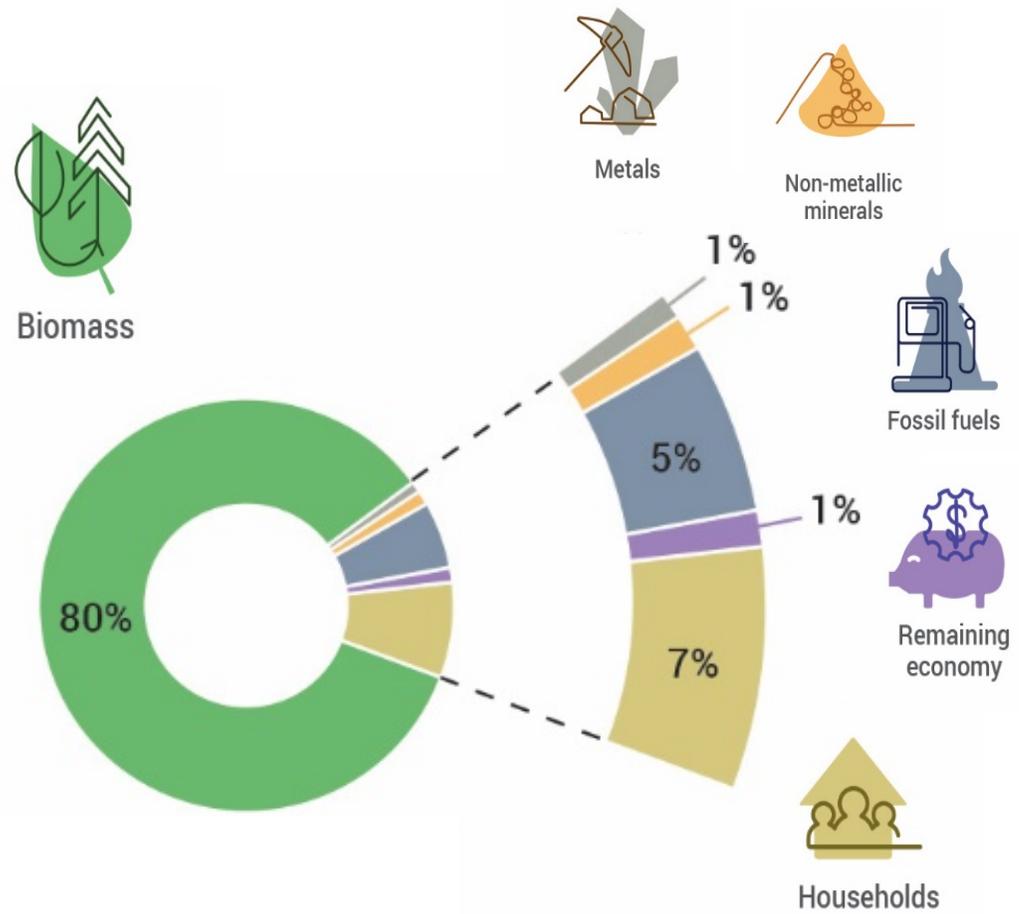


90% of global biodiversity loss and water stress



11% of global species loss

Land Use Related Biodiversity 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

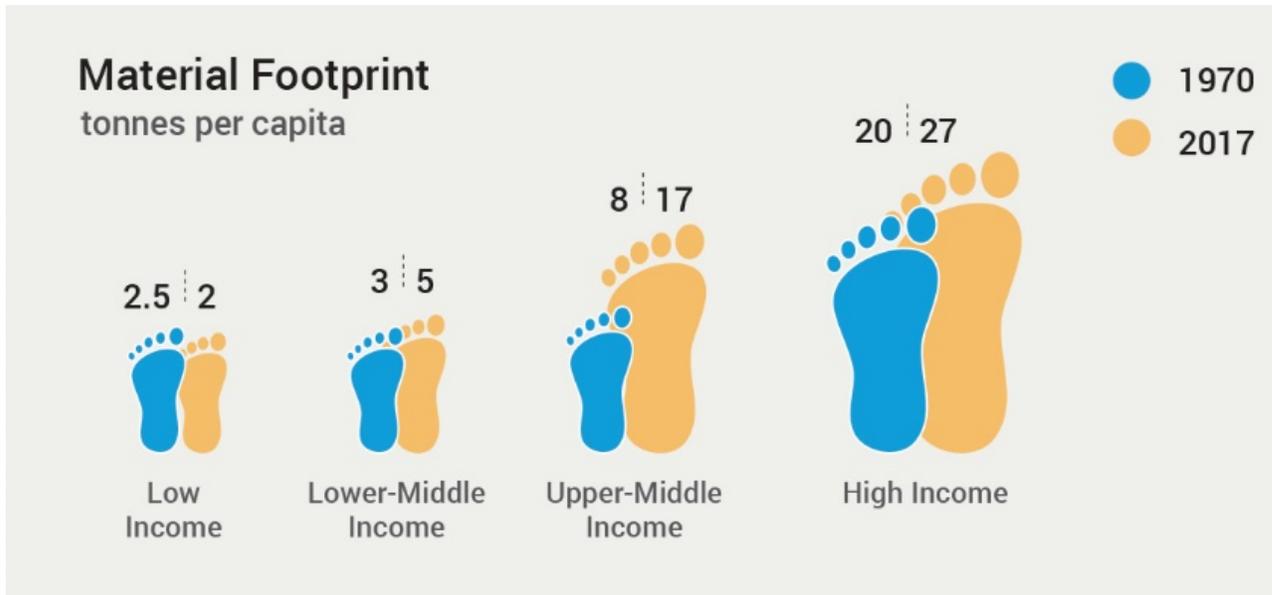
Higher per capita material consumption than the high-income group as of 2012

Practically **no change** for low income countries despite needing it the most

Domestic Material Consumption
tonnes per capita



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

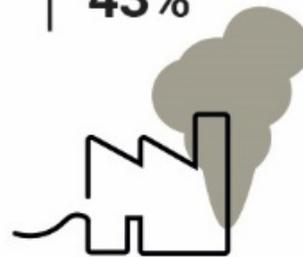
Without urgent and concerted action, rapid growth and inefficient use of natural resources will continue to create **unsustainable pressures** on the environment.

↑ more than **doubles**



Global material extraction

↑ increases by **43%**



Greenhouse gas emissions

↑ increases by more than **20%**



Area of agricultural land

↑ increases by **25%**



Global pasture land

↓ reduces by over **10%**

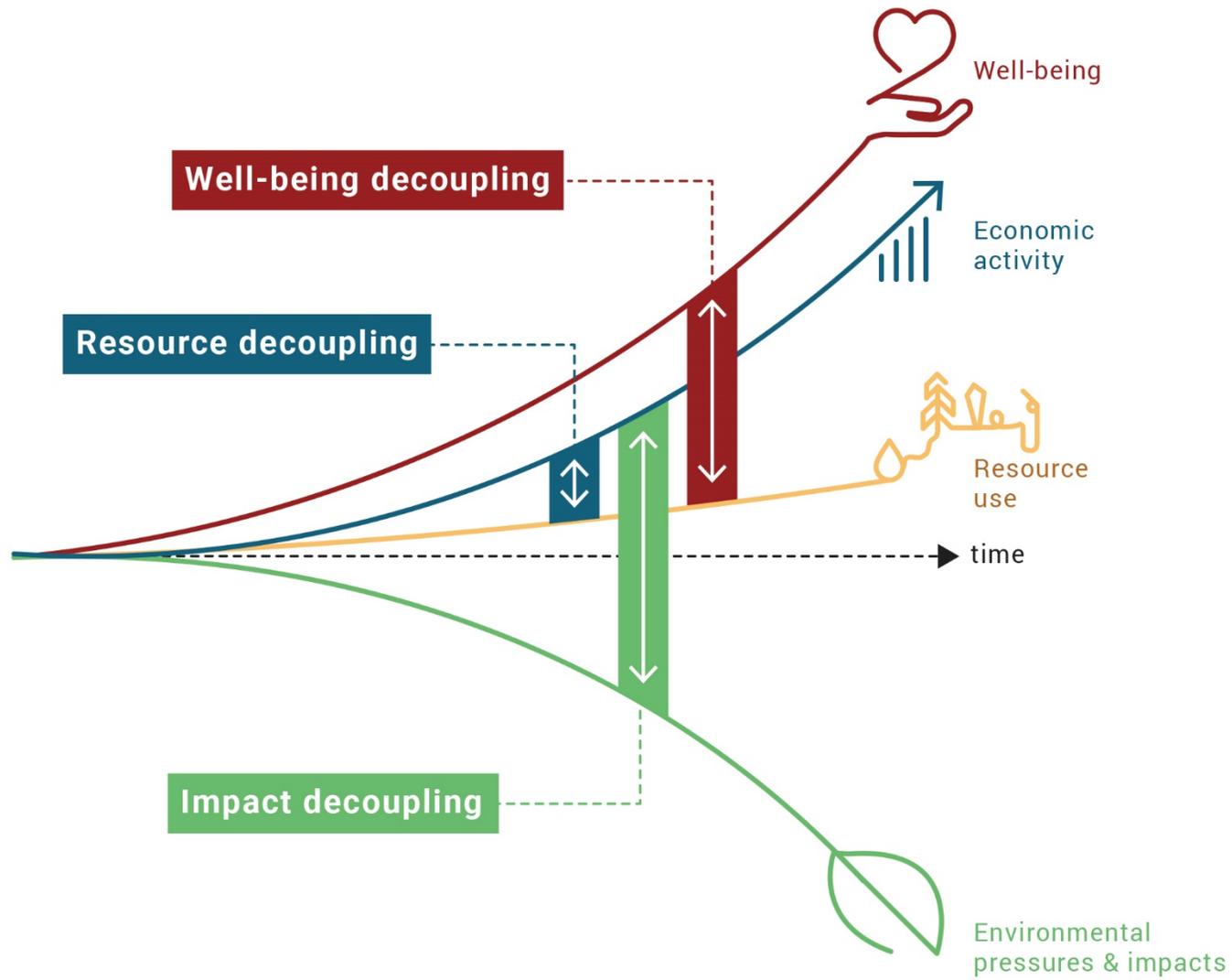


Forests

↓ reduces by around **20%**

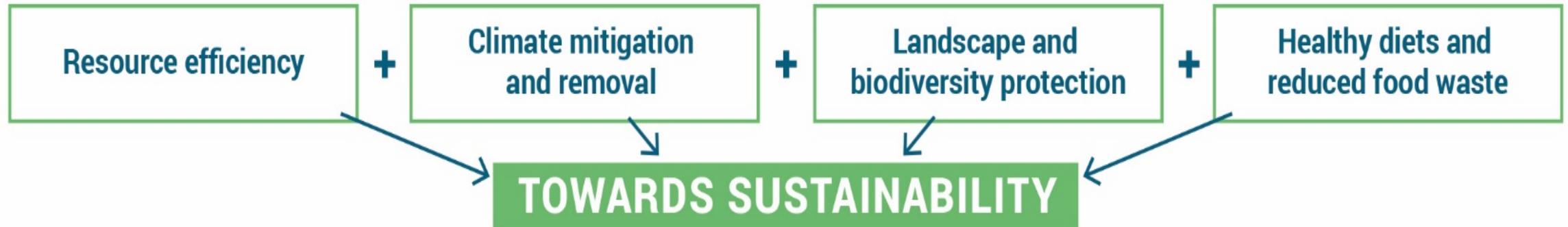


Other natural habitat



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**



The *Towards Sustainability* scenario shows that changes in policies and behaviors can achieve decoupling of natural resource use and environmental impacts from economic growth and human wellbeing.

Towards Sustainability scenario assumptions

Resource Efficiency

Reduction in materials use in manufacturing and construction through innovation, increased demand and recycling

Assumed policies incl. regulations, technical standards, public procurement, shifts in taxation

Landscape and Biodiversity Protection

Bio-diversity in bio-sequestration solutions, reducing crop-based biofuels and limiting agricultural land

Assumed policies: biodiversity conditions on GHG sequestration sinks, and policies to conserve native vegetation and key biodiversity areas



Climate Mitigation and Removal

Bio-sequestration and carbon dioxide removal technologies

Assumed policies: Support of innovations through public investments, carbon levy for the financing of carbon sinks

Shifts in Societal Behavior: Healthy Diets and Reduced Food Waste

Halving the current meat consumption (less in regions of low-meat diets) and halving food waste by 2050

Assumed policies: Including public education

Historical Trends

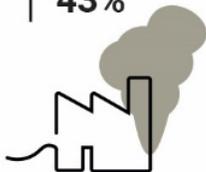
Projected 2060 compared to 2015 levels in absence of urgent and concerted action

↑ more than **doubles**



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Greenhouse gas emissions

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Other natural habitat

Towards Sustainability

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

↑ US\$ 233 trillion
8% above
Historical Trends



Global GDP

↓ **25%**
lower than
Historical Trends



Global material extraction

↓ decrease by **90%**



Greenhouse gas emissions

↓ **9%**
less than
Historical Trends



Area of agricultural land

↓ **30%**
less than
Historical Trends



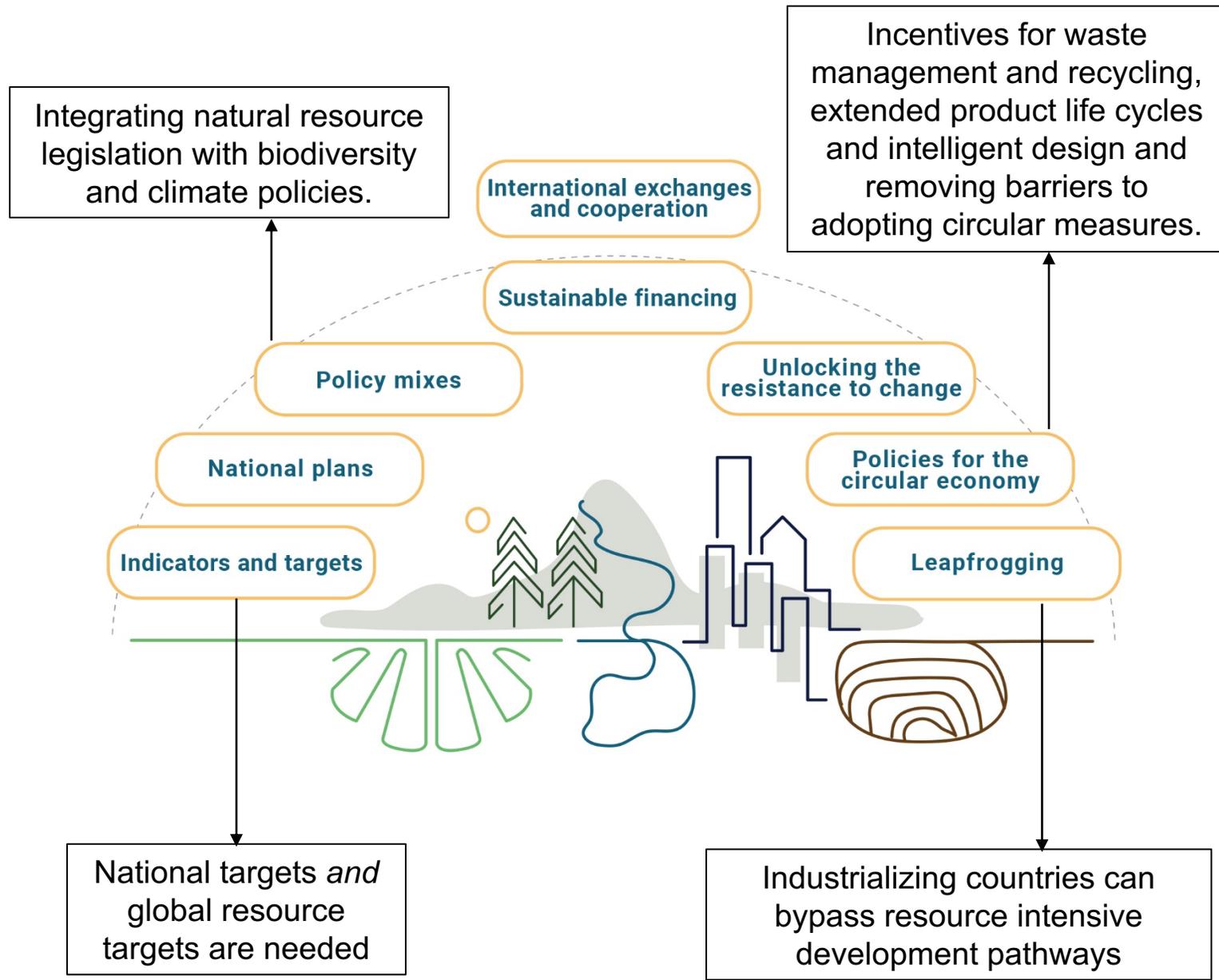
Global pasture land

↑ increases by **11%**



Area of forest and other natural habitat

Policy and decision makers have **tools** at their disposal to **advance worthwhile change**, including transformational change at **local, national and global scales**.



International exchanges and cooperation can make important contributions to achieving systemic change.

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

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Science and Policy
for People and Nature

GEO6
GLOBAL ENVIRONMENT OUTLOOK



GCO
Global Chemicals Outlook

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

 One planet
handle with care

 PAGE

 PACE
PLATFORM FOR ACCELERATING
THE CIRCULAR ECONOMY

 GREEN GROWTH
Knowledge Platform

Synergistic approaches to international obligations



United Nations
Convention to Combat
Desertification



CBD

Global debate at high-level regional and global forums

 UNEA
United Nations Environment Assembly
of the United Nations Environment Programme

G20
ARGENTINA 2018

G7 FRANCE

 HIGH-LEVEL POLITICAL FORUM
ON SUSTAINABLE DEVELOPMENT

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Thank you!

Read the report: 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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