UN environment

ifa STRATEGIC FORUM 2019 VERSAILLES

International Resource Panel

Resource Constraints and Management Considerations for Industries

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SYSTEMIQ

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Let's start the story in my home country Slovenia

Slavoj Žižek

"It is clear that we are approaching the ecological and digital apocalypse … but we should not loose nerves."

"Everything under heaven is in utter chaos; the situation is excellent."

2

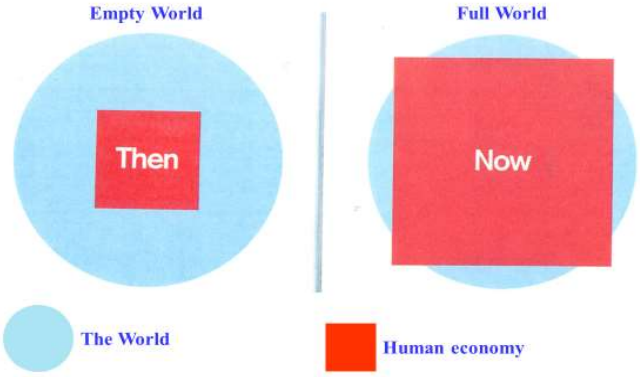
For the first time in a human history we face the emergence of a single, tightly coupled human social-ecological system of planetary scope.

We are more interconnected and interdependent than ever.

Our individual and collective responsibility has enormously increased.

3

Empty World and Full World



Source: Club of Rome: Simplified after Herman Daly

Labour and Infrastructure limiting factors of human wellbeing → *Natural resources and Environmental sinks limiting factors of human wellbeing*

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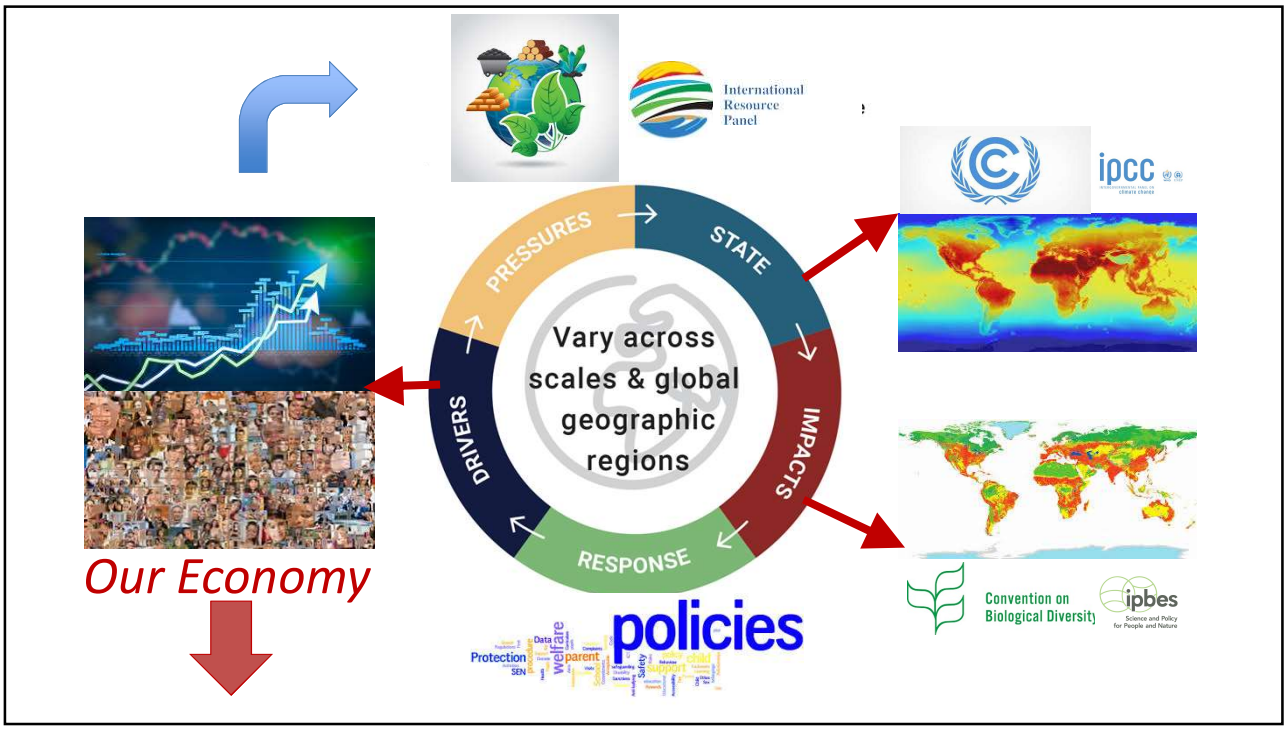

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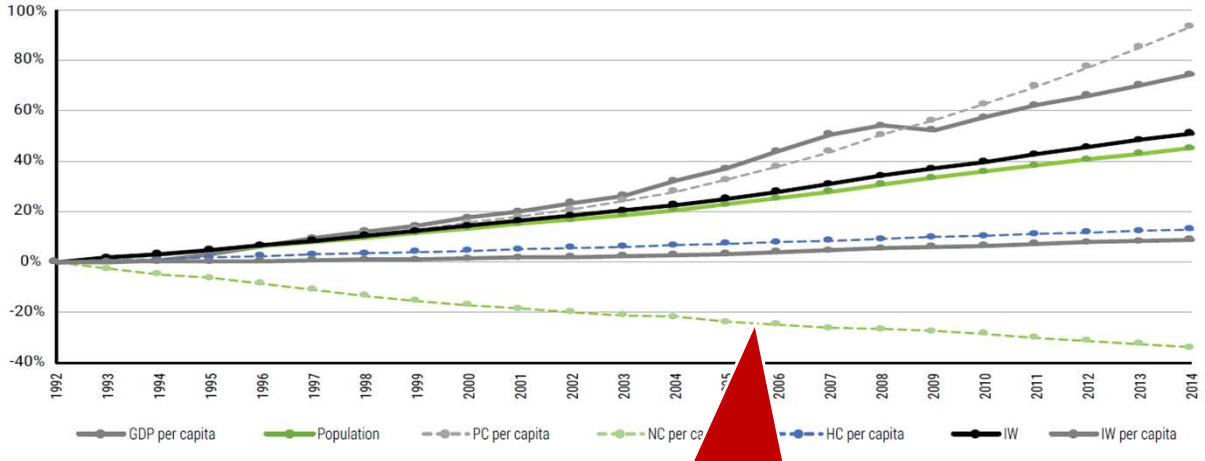
Inclusive Wealth (IW) Index (and its components) evolution - 1992 to 2014

Source: UN, 2018 Inclusive Wealth Report 2018



IW – Inclusive Wealth
PC – Production capital
HC – Human capital
NC – Natural capital

Growth of GDP in the past decades has been achieved at the cost of depleting natural capital

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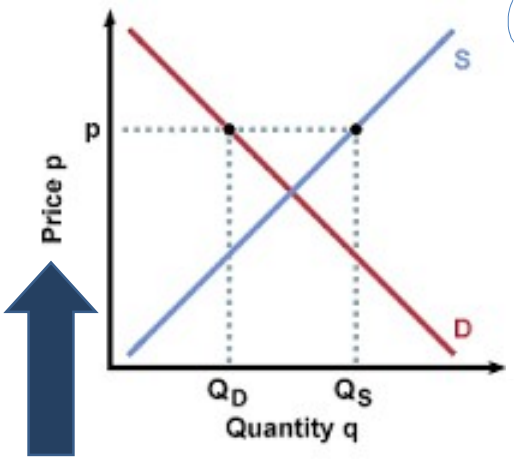
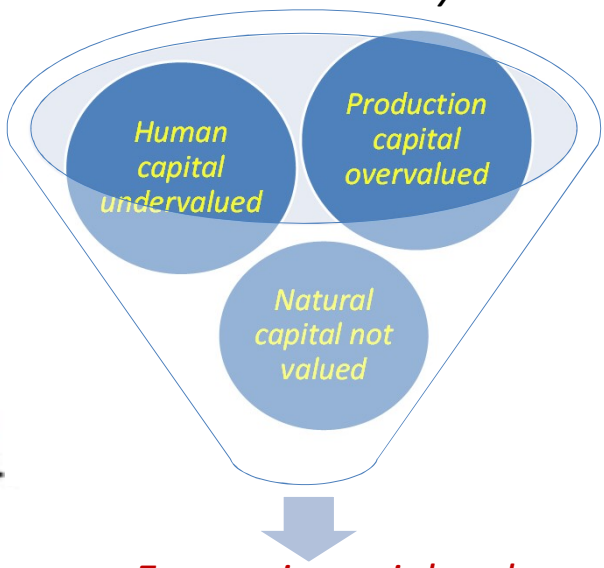
Producers/Consumers Rational Behaviour



Market Economy



Economic, social and environmental (in)balance

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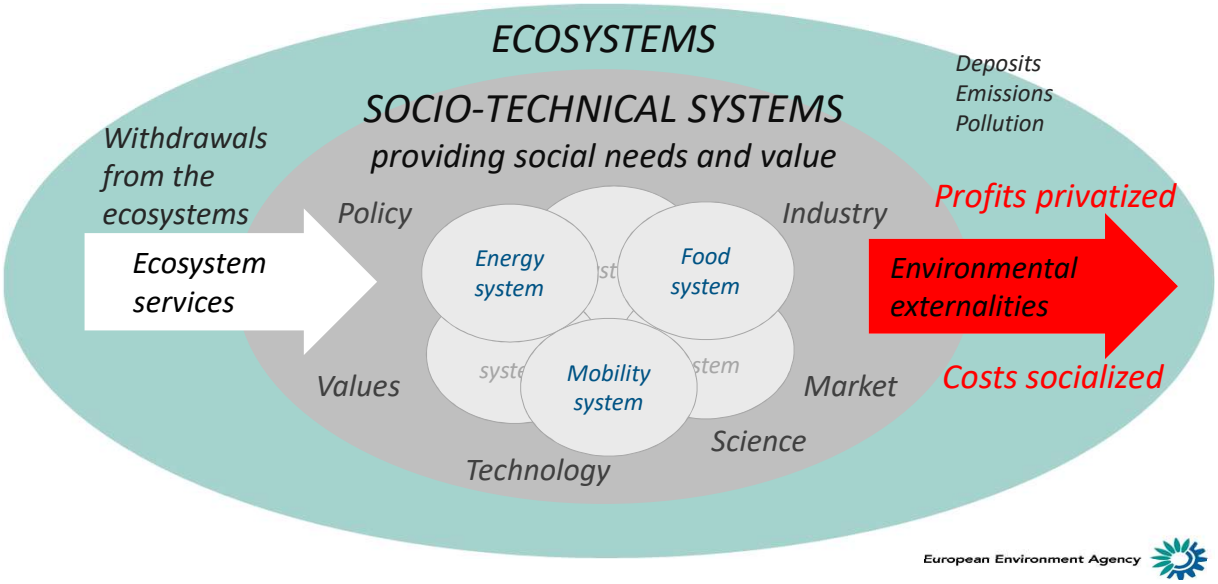
LIVING WELL WITHIN ECOLOGICAL LIMITS

ECONOMIC SYSTEM FUNCTION OF ECOSYSTEM



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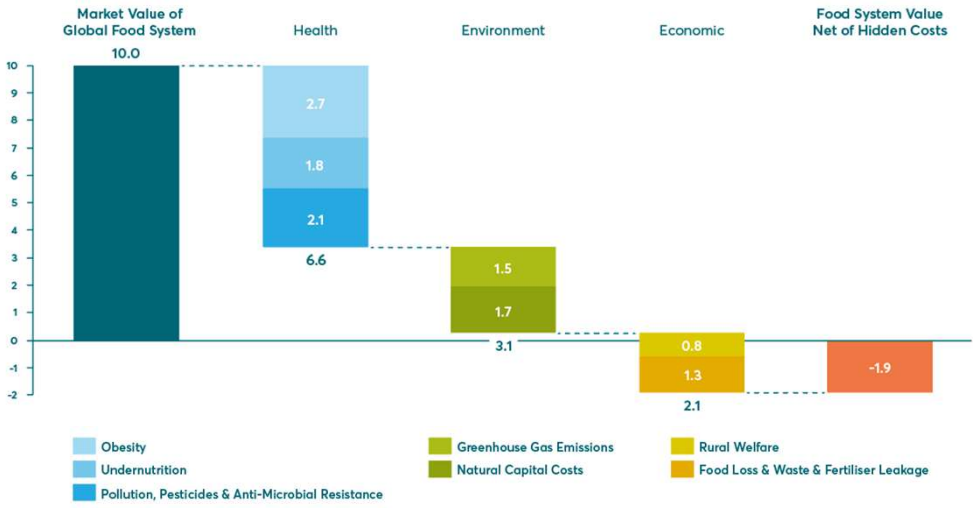
The Food and Land Use Coalition

Hidden costs in global food and land systems

The "hidden costs" of global food and land use systems sum to ***$12 trillion****, compared to a market value of the global food system of $10 trillion.*



Source: Food and Land Use Coalition, 2019

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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)

International Resource Panel

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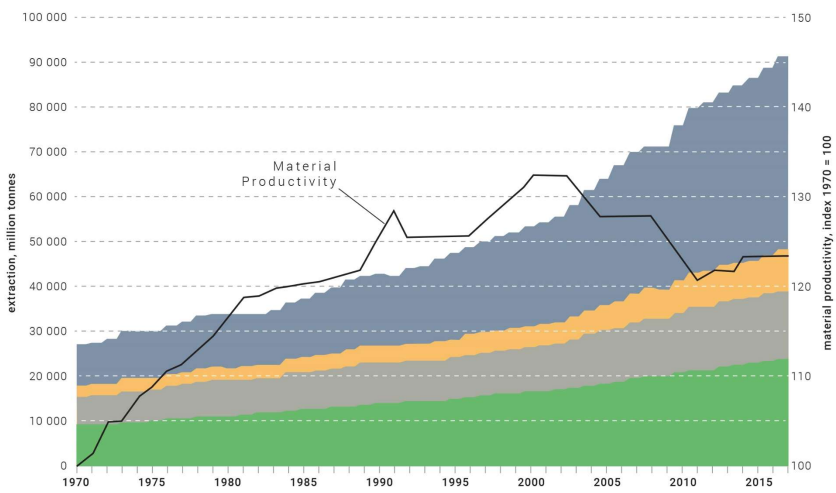
Relentless demand: Global resource use, Material demand per capita and Material productivity

Global material extraction and material productivity, 1970 - 2017



- *Global resource use has more than tripled since 1970*
- *Global material demand per capita grew from 7.4 tons in 1970 to 12.2 tons per capita in 2017*
- *Material productivity started to decline around 2000 and has stagnated in the recent years*

Non-metallic minerals
Metals
Fossil fuels
Biomass

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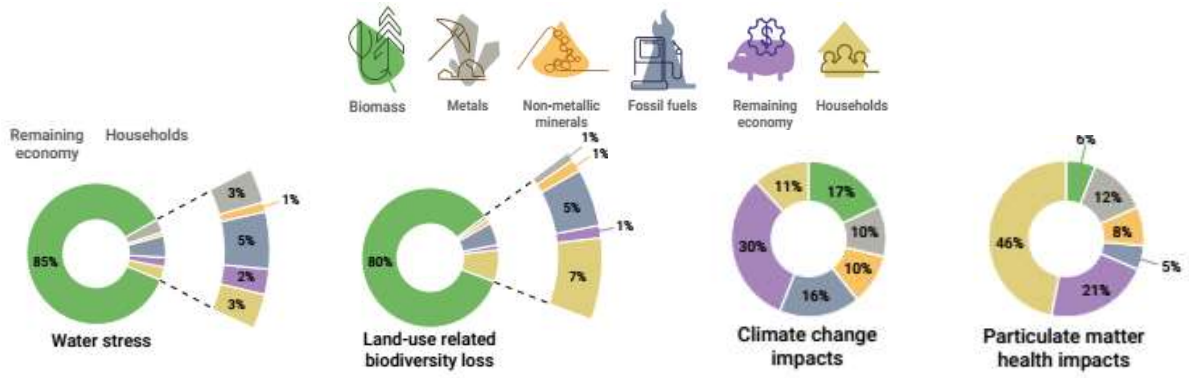
Environmental impacts in the value chain
resource extraction and processing phase

***90%** of global biodiversity loss and water stress*

***50%** of global climate change impacts*

1/3 of air pollution health impacts



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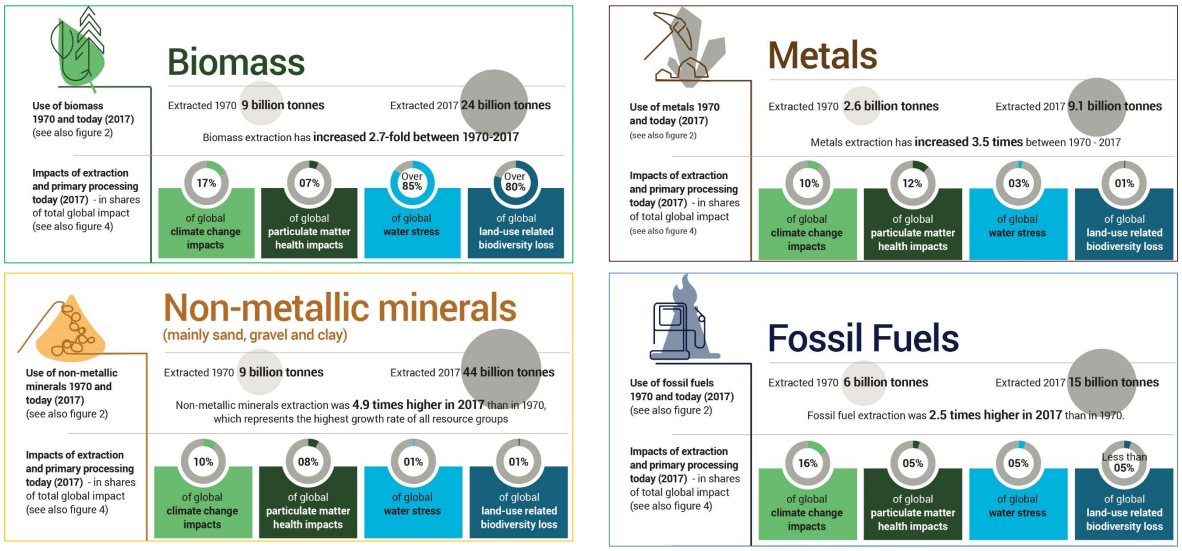
Resources use and impacts magnified: *Biomass responsible for over 80% of water stress and land-use related biodiversity loss and 17% of climate impacts*



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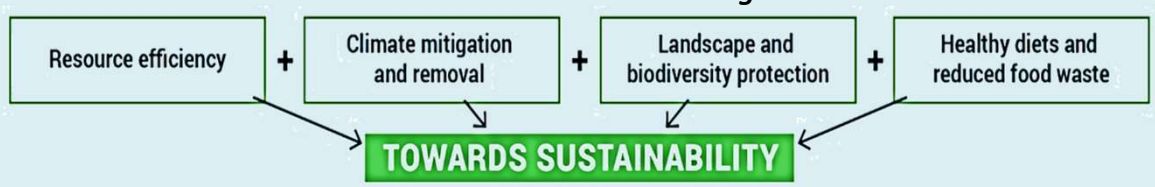
Achieving decoupling is possible and can deliver substantial social and environmental benefits, including repair of past environmental damage, while also supporting economic development and human well-being

IRP Scenario modelling



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.

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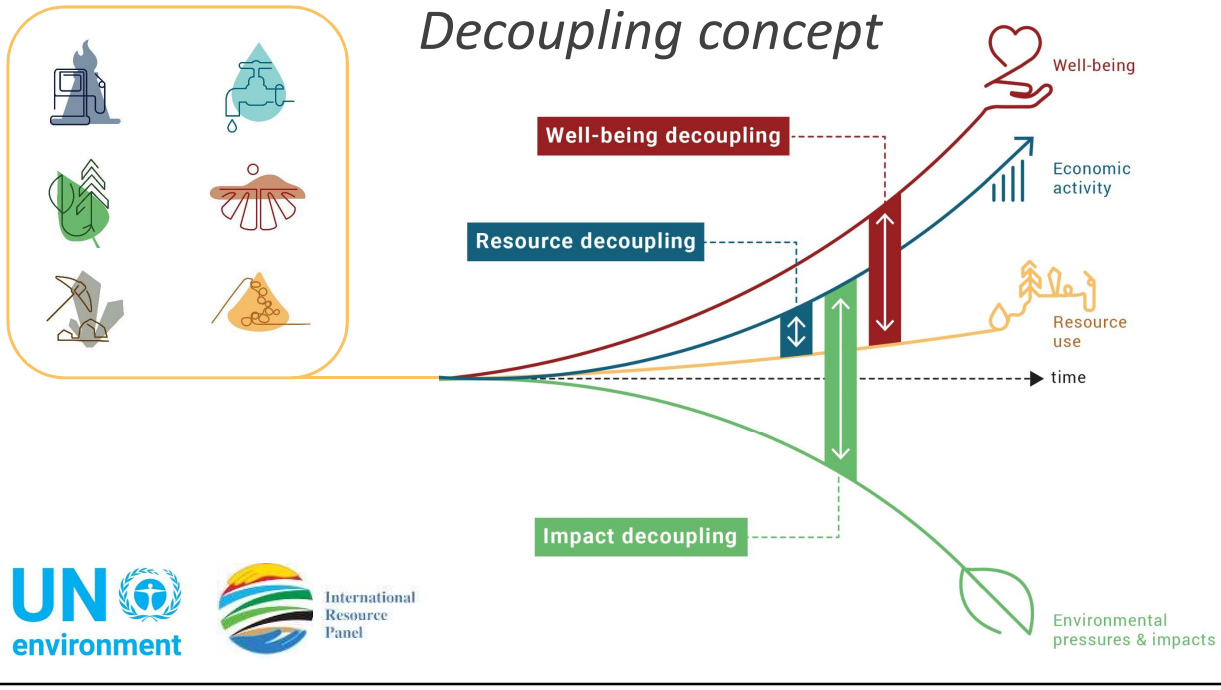

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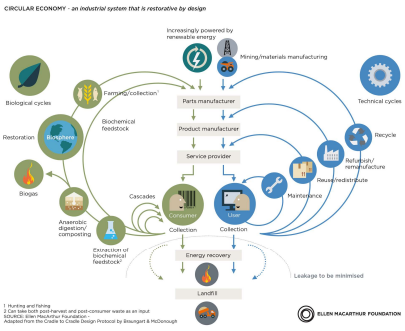
CIRCULAR ECONOMY



Should be seen as an instrument to deliver decoupling and as a part of the bigger picture of economic, societal and cultural transformation needed to deliver the SDGs

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PILLARS FOR EFFICIENT CLIMATE CHANGE POLICY

SUPPLY SIDE SOLUTIONS	DEMAND SIDE SOLUTIONS	NATURE BASED SOLUTIONS
Energy, Carbon management	Circular Economy, Land, Water, Materials Management	Eco-system services Environmental sinks

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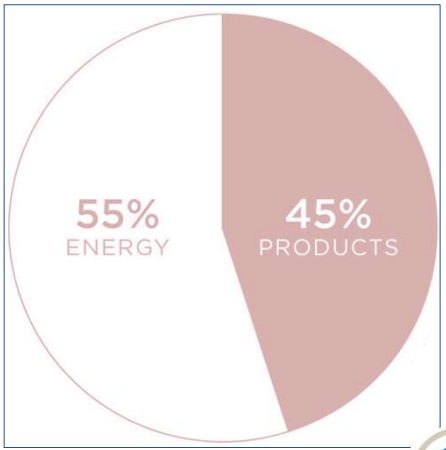
An incomplete picture?

In 2050 a circular scenario for:

- *The built environment could reduce CO2 emissions by 38%*
- *Passenger cars could reduce CO2 emissions by 70%*
- *Food could reduce CO2 emissions by 49% in 2050*



TOTAL CURRENT EMISSIONS

Energy

- *Energy systems*
- *Energy for transportation*
- *Energy for buildings*

Products

- *Agriculture, Forestry, Other Land Use*
- *Industry (material product.)*

ELLEN MACARTHUR FOUNDATION Rethink the future

MATERIAL ECONOMICS

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The Food and Land Use Coalition

Ten critical transitions

Economic Prize

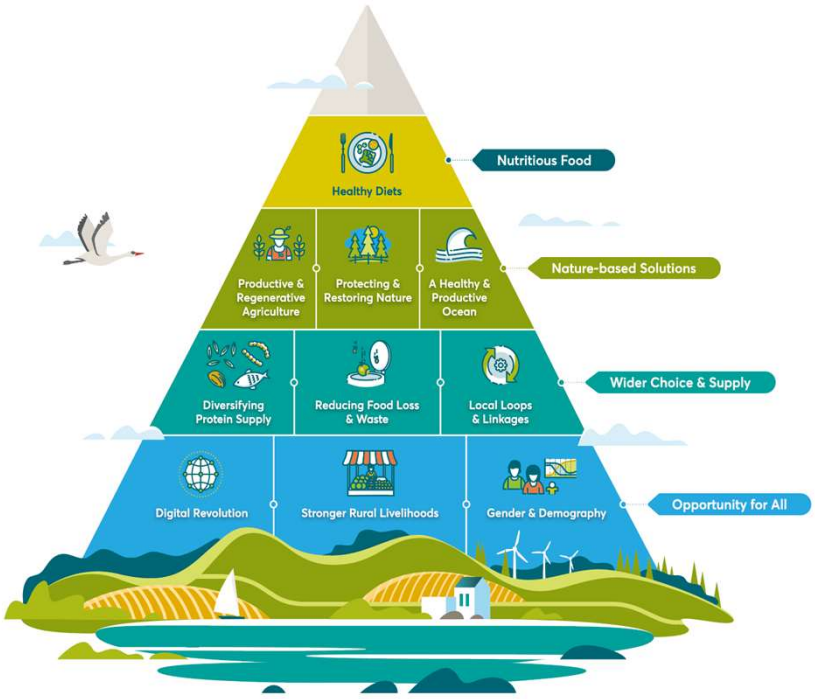
$5.7 trillion economic prize by 2030 and $10.5 by 2050 based on avoided hidden costs

Investment Requirements

$300-$350 billion required each year for the transformation of food and land use systems to 2030

Business Opportunity

$4.5 trillion annual opportunity for businesses associated with the ten critical transitions by 2030



Source: Food and Land Use Coalition, 2019

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FUTURE CAP REFORM

SOME INITIAL THOUGHTS (2016)

- *Sustainability of the food system is not responsibility limited to the agriculture. It can only be reached if all actors in the food chain are playing active role. We need to integrate various policies and search for solutions beyond the agricultural remit.*
- *Agriculture community should recognise the seriousness of the problems and actively engage in necessary transition. Environmental community should recognise farmers as partners for change.*
- *Farmers were in the past acting in good faith. They need and deserve public support for transition. Recognition of the need for transition would enable the necessity for financial support in the future.*
- *CAP should be reoriented towards public support for transition and provision of the public goods (sustainability and health should be better factored in)*
- *CAP adoption process needs to be improved - partnership among agricultural and environmental community should be strengthened.*

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Fertilisers community should …

- *Refocus from fertilisers industry thinking to optimisation of the agricultural and food system. This could be well informed by the recent FOLU Report focusing on ten most important transitions related to food and land. Circular economy logic should play an important part.*
- *Focus on solutions which respond to the speed and scale criteria best*
- *Be loud and clear that it expects support and clear guidance for the transition needed in the Green Deal and the upcoming Farm and Fork Strategy.*
- *Demand the proper public policy lead and also funding support, in particular when it comes to current CAP proposal*

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From Quantity Driven Profits to the Consumer's Needs

We do not need light bulbs	…	*We need light*
We do not need chairs	…	*We need to sit*
We do not need cars	…	*We need mobility*
We do not need refrigerators	…	*We need chilled and healthy food*
We do not need CDs	…	*We want to listen to the music*
We do not need pesticides	…	*We want healthy plants*

Dematerialisation, Rethinking Ownership, From Resource Efficiency to Resource Sufficiency

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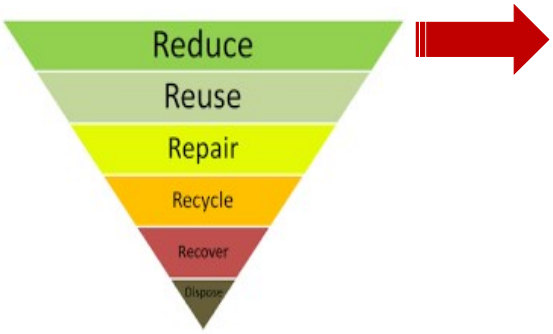
From Waste Policy to Product Policy

From End of Pipe to Life Cycle Approach

Waste Framework Directive

Waste Hierarchy



Product Framework Legislation

From Waste Hierarchy to Product Hierarchy
Product Value Retention System
End of Product Status
Producer Ownership Concept
Design for Sustainability Requirements
Public Procurement Requirements
Product Passport
Registration for Market Access
….

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TO CONCLUDE

WHY AND HOW?

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Soren Kierkegaard

There are two ways to be fooled …

One is to believe what isn't true.

The other is to refuse to believe what is true.

Using "alternative facts" will unfortunately not solve our problems!

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Common Conclusions Drawn from IPCC, IPBES, GEO, IRP reports

1. *The challenge of negative environmental change has not only been increasing but accelerating in the last decades. The challenge is unprecedented in human history and bears extreme risks for human wellbeing around the world. Impacts on human safety are already perceivable and will accelerate to dangerous levels very soon. Causes and impacts of environmental change are highly unequal around the world.*
2. *Climate change, biodiversity loss, and the unsustainable use of resources can still be mitigated to avoid reaching tipping points of global catastrophe; the investment need for action is clearly lower than the cost of inaction.*
3. *Doing so requires transformative change. The solution is not found in remedying current economic systems of production and consumptions, we need to change the fundamentals.*
4. *Transformative change needs to start immediately, and trends must be turned around before 2030 to avoid irreversible levels of impact.*
5. *Innovation and investments needed for the sustainable transition have wide co-benefits that are very likely to lead to better economic progress underpinned by a global innovation wave and close cooperation.*

ipcc
Science and Policy for People and Nature
International Resource Panel
GEO HEALTHY PLANET HEALTHY PEOPLE

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Common Conclusions Drawn from IPCC, IPBES, GEO, IRP reports

6. *To avoid dangers and reap the economic potential of the transition, global governance and institutions need to improve. Countries must cooperate more closely, and so need sectors. "Environmental" action can no longer be a silo, but must become a priority across health, economic, financial, industrial and technological decision makers.*
7. *Better governance has to solve, among others, central tasks highlighted across all reports:*
   - *Economic governance must modernize their calculation and use of 'prices' and 'costs'. Prices of products and services must move to incorporate environmental and health costs, and other so called "externalities" across value chains.*
   - *The world needs to agree a common understanding of practicable targets and indicators for sustainable production and consumption. The 1.5oC target for limiting global warming is an important start and similarly clear targets must be set for all those areas that crucial for humanity's safe operating space. Ideally, these targets would cover all fundamental impacts, such as air pollution or water stress, as well as link to their causes, such as material use.*
   - *International and national governance must reform harmful policies and subsidies that are currently causing high adverse impacts.*

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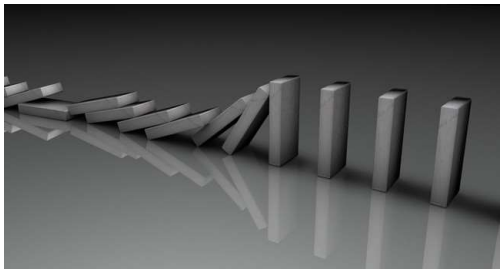
Transition to a more sustainable economy and society



IS UNAVOIDABLE!

Humans are supposed to be intelligent. It is high time to prove it.

We have to fix a broken compass!

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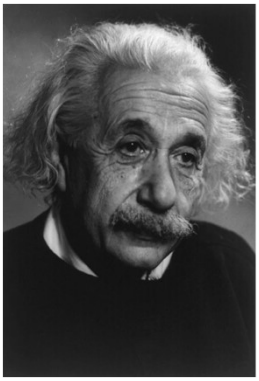
WILL TRANSITION BE EASY?

ALBERT EINSTEIN



When asked why it is that mankind has stretched so far as to discover the structure of the atom, but we have not been able to devise the political means to keep the atom from destroying us he replied:

"That is simple, my friend. It is because politics is more difficult than physics"

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Why the changes are so difficult in practice?

- *While the challenges we face require a deep systemic change and long-term rethinking of the way how we govern our societies, political cycles, public and financial institutions, to a large extent also private companies, have inbuilt short-term focus and logic. This inconsistency limits our ability for efficient and strategic action.*
- *Production and consumption systems are based on the logic of consumerism fuelled by quantity-driven profits and growth measured by GDP. GDP could be best explained by saying, that one will not reach the goal by walking faster, if walking in the wrong direction! We have to fix a broken compass! There is a lack of strategic identification of risks and long-term, even mid-term, risk management and there is a clear lack of understanding what really matters for our wellbeing.*
- *A transition to a more sustainable economy and society will only be possible if it is just, fair and inclusive. We have to make our societies more equitable and do more in the fight against poverty. Social unrest is growing even in high-income countries and it is high time to hear the echo of the streets and the voice of a frustrated young generation.*

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"North Star" guiding our policies and behaviour

GREEN DEAL: INTER-GENERATIONAL AGREEMENT

A Program for the Future Generations

"Sustainability First"

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Circular Economy is not a new concept

It is the oldest concept on the earth. All nature is organized based on the principles of the circular economy. Nothing is lost and everything has its purpose.
That is why it would make common sense to embrace it and finally start to behave accordingly.

In essence there is only question we have to answer:
Do we agree that we humans are part of the nature too?

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To answer this question we probably do not need the help of the most famous Belgium detective, but his advise is always useful

HERCULE POIROT

When asked why he is speaking about himself always in a third person he replied something like that:

If one is such a genius like myself, it is very important to establish a healthy distance to himself.

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THANK YOU

For more information

Contact IRP Secretariat at resourcepanel@un.org

Visit our website at http://resourcepanel.org/

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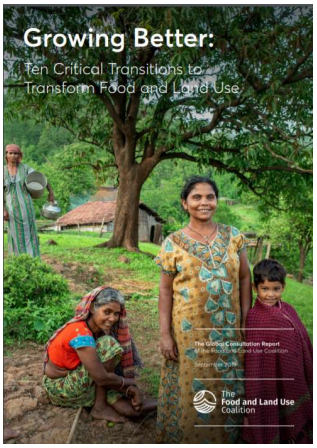
The Food and Land Use Coalition

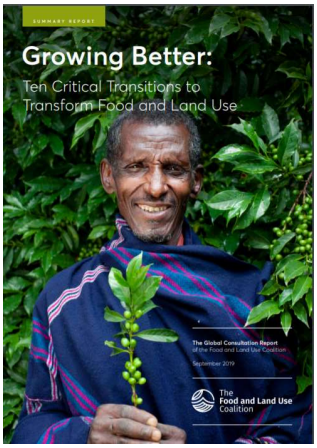
Growing Better: Ten Critical Transitions to Transform Food and Land Use

The FOLU Global Consultation Report

- *The first integrated, global assessment of the social, economic and health benefits of transforming our food and land use systems, and the large, growing costs and risks of inaction.*
- *Make the case for rapid, deep change.*
- *Describes a systemic reform agenda and how this might be applied through ten critical transitions.*
- *Help to build stakeholder confidence that transformation is urgent, necessary, profitable and achievable.*
- *This is a "consultation report": it aims to trigger action, but also to inspire dialogue and debate across the world, helping to support a shared journey of learning, creativity and societal change.*



Full Report & Executive Summary



Summary Report