

Fostering transformational change through market approaches under the Paris Agreement

Virtual Workshop

Stephan Hoch

Moderator, Perspectives Climate Research

31 May 2021

Housekeeping



Please **mute** yourself if you are not talking



Please use the **chat feature** to communicate technical issues.



If you have clarification **questions** to the speakers, you can raise them **at the end** of each session. After each session, we open up for a **general discussion**.



Please note that the presentations of session 1 and 2 will be recorded **but not the discussions** including the ones in the breakout groups.



The **slides** and a brief summary will be **shared** via email after the workshop.

Setting the scene

- Voluntary international cooperation under Article 6 can be used to **raise Parties' NDC ambition**

Article 6 of the Paris Agreement	
Voluntary cooperation in the implementation of NDCs	
Article 6.2 Bilateral or multilateral cooperative approaches	Article 6.4 UNFCCC crediting mechanism

- Specific design options for market-based approaches under the PA **can activate or strengthen their transformational impact**
- Core principles of carbon markets need to be reinterpreted in light of NDC targets, the ambition cycle, LT-LEDS and the PA's long-term objectives **to accelerate transformational change**

Objectives of the workshop

- **Discussion of the interim results of the UBA research project “Strengthening the transformative effect of markets approaches under the Paris Convention”**
 - How can transformational change be promoted through Article 6 cooperation?
 - Role of regulatory and monetary incentives in driving transformation
 - Identification of Article 6 specific transformation characteristics and their application in three different Article 6 case studies in Morocco’s waste sector, Costa Rica’s transport sector and Pakistan’s energy sector
- **Consultation with leading international experts on how the contribution of Article 6 to transformational change can be strengthened**
- **Gathering further input for the preparation of the main publication of research project (expected Q4/2021)**

Agenda – Session 1

Session 1: Defining and operationalising transformational change for Article 6 cooperation

14:15 - 14:35	Introducing a definition of transformational change and transformation characteristics for Article 6 cooperation	<i>Karen Holm Olsen, UNEP DTU</i>
14:35 - 14:45	An absolute approach to safeguard planetary boundaries for determining a safe and just operating space for Article 6 programmes	<i>Morten Ryberg, Technical University of Denmark (DTU)</i>
14:45 - 14:55	Implementing the transformational change concept as additionality criterion for Article 6 to contribute to NDC ambition raising at the national level	<i>Felipe de León, Ministry of Environment and Energy (Costa Rica)</i>
14:55 - 15:15	Q&A session	

Agenda – Session 2

Session 2: Establishing an incentive structure for transformational change		
15:15 - 15:30	From conceptual options to strengthen the transformational impact of Article 6 to introducing an incentive structure	<i>Stephan Hoch and Juliana Kessler, Perspectives Climate Research</i>
15:30 - 15:40	Brief introduction of the three case studies <ul style="list-style-type: none">• Morocco: Organic waste to energy activity• Costa Rica: Modal shift to non-motorised transport• Pakistan: Integrating Article 6 in competitive power auctions	<i>Yves Keller, First Climate</i>
15:40 - 15:50	Host country engagement in Article 6 readiness activities and piloting	<i>Syeda Hadika Jamshaid, Ministry of Climate Change (Pakistan)</i>
15:50 – 16:00	Q&A session	
16:00 - 16:10	Break	

Agenda – Session 3

Session 3: Considerations of implementing an incentive structure for transformational change

16:10 - 16:15	Transition to Breakout Groups (BOG)	
16:15 - 17:00	BOG1: Additionality for transformational impact (and the role of negative and positive lists)	<i>Moderated by Yves Keller, Input presentation by Michael Gillenwater (GHG Management Institute)</i>
16:15 - 17:00	BOG2: Baseline setting in line with transformational change	<i>Moderated by Axel Michaelowa (PCR), Input presentation by Luca Lo Re (International Energy Agency)</i>
16:15 - 17:00	BOG3: Promoting sustainable development and mitigation synergies, while safeguarding planetary boundaries and trade-offs for ambition raising and transformational impact	<i>Moderated by Karen Holm Olsen, Input presentation by Temuulen Murun (Institute for Global Environmental Strategies)</i>

Breakout group discussions

- **In case you have not chosen a breakout group when registering, please send *Aayushi Singh* a private message until the break and let her know your breakout room preference:**
 - 1) Additionality for transformational impact (and the role of negative and positive lists)
 - 2) Baseline setting in line with transformational change
 - 3) Promoting sustainable development and mitigation synergies, while safeguarding planetary boundaries and trade-offs for ambition raising and transformational impact

Agenda – Session 4

Session 4: Discussion

17:00 - 17:25	Reporting back from breakout groups and discussion	<i>Summary by moderators</i>
17:25 - 17:30	Concluding remarks, wrap up	<i>BMU, UBA Stephan Hoch Karen Holm Olsen</i>



Thank You!

Stephan Hoch

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Virtual International Workshop:

'Fostering transformational change through market approaches under the Paris Agreement'

Monday 31 May 2021, 14:00pm-17:00pm (CET), Zoom

Introducing a definition of transformational change and transformation characteristics for Article 6 cooperation

Karen Holm Olsen, UNEP DTU Partnership

Senior Researcher, kaol@dtu.dk

Definition of transformational change and identifying transformative characteristics relevant to Article 6

Objective:

- To understand and strengthen how carbon market approaches under the Paris Agreement can have a transformative impact for net zero emissions and SDGs

Methodology - two steps

1. Conceptual understanding

- *A literature review* on the concept of transformation: 131 sources assessed in 5 categories (1) Finance and mechanisms, 2) Grey, 3) Peer-reviewed, 4) Corona & 5) Historical) reviewed and analysed in an Excel sheet based on questions, main findings summarised in the report
- *Semi-structured interviews* with four funds and mechanisms: 1) KliK, 2) TCAF, 3) FMO, 4) EBRD based on a questionnaire and notes (no transcriptions and quotes)

2. Applied transformation characteristics

- Analysis of the characteristics of transformation in *three countries and sectors*: 1) Morocco (North Africa) - waste sector, 2) Costa Rica (Central America) - transport sector and 3) Pakistan (South Asia) - energy sector
- *Ideas and Options* for Promoting Transformation through Article 6 Approaches (synthesis of insights as basis for development of incentive structure)

Insights from the literature review - snapshots

Category	Insights
Finance and mechanisms	Described under interviews
Grey	<ul style="list-style-type: none"> ▪ Hermwille L. (2020) focuses on methods of attributing mitigation outcomes and suggests a dynamic baseline as a basis for generating mitigation outcomes aligned with the Paris Agreement temperature goal. ▪ Factors work against transformation through Article 6, such as: a) the environmental integrity of mitigation outcomes may be at risk, if additionality is not ensured under new crediting mechanisms; b) low ambition of NDCs could lead to the transfer of hot air (inflated baselines); c) a lack of robust accounting of international transfers could lead to double counting.
Peer-reviewed	<ul style="list-style-type: none"> • Climate mitigation options consistent with 1.5 degree pathways are often associated with multiple synergies and trade-offs with the SDGs, likely resulting in more synergies than actual trade-offs (IPCC SR1.5, 2018).
Covid-19	<ul style="list-style-type: none"> • Many voices are calling for a green recovery, with the COVID-19 crisis being a possible window of opportunity for climate action (Elkerbout et al., 2020; Fishedick and Schneidewind, 2020; Hepburn et al., 2020; Steffen et al., 2020).
Historical cases	<ul style="list-style-type: none"> • The literature review of historical cases of transformative change revealed that policy instruments are decisive to drive transformation, and need to be applied consistently over long periods of time, unless the transformation is driven by rapid autonomous technological development undercutting costs of incumbent technologies.

Insights from the interviews - snapshots

Topics	KliK	TCAF	FMO	EBRD
Engagement in Article 6 activities	Facilitates Article 6 activities and transactions	Aim for Article 6 transactions, yet no active pipeline of projects	No, provides climate and development finance	No, provides climate and development finance
Definition of transformation	<p>Promotion of the concept of transformation based on 3 pillars:</p> <ol style="list-style-type: none"> 1) Sustained nature of activities, that generates a sustainable income for local communities 2) Paris compatible, incl. for sustainable development and technology 3) Policy congruence with Host countries to support and supplement the achievements of NDCs 	<p>Promotion of the concept of transformational change approached from economic theory:</p> <ul style="list-style-type: none"> • An activity is transformational if it has an impact beyond the project boundaries. • TC is defined separately from SD, the latter is defined by Host countries 	<ul style="list-style-type: none"> • Use of the SDGs (promotion of SDGs 8, 10 and 13) and ambition to align with the 1.5 degree target of the PA. • Definition of two labels for individual investments: <ol style="list-style-type: none"> 1) Green Label 2) Reducing inequalities 	<ul style="list-style-type: none"> • EBRD thinks of 'transition' and 'transformation' as synonymous: means to create the right regulatory system for carbon markets and to bring in capacity building along with the investments • Adherence to the transition concept was fostered by the increasing demand by donors • Focus on climate resilience and SDGs

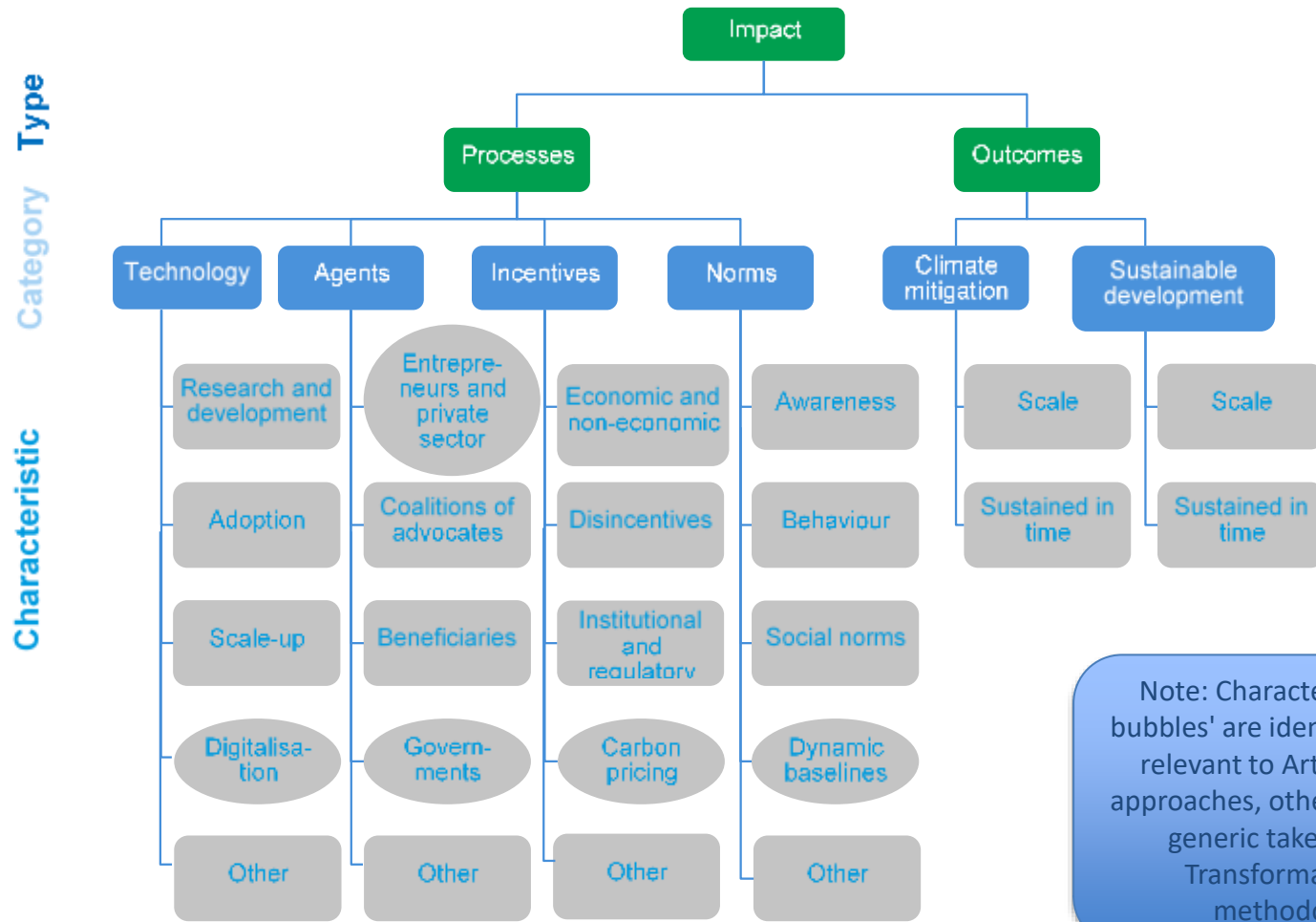
Definition of transformational change for Article 6

Based on insights from the literature review and interviews, we propose the following definition specific to A6:

A fundamental, sustained change of a system that ends established high-carbon practices and contributes to a zero-carbon society, in line with the Paris Agreement goal to limit global warming to 1.5–2°C and the United Nations Sustainable Development Goals*

*Zero carbon means, “net zero carbon”, which implies that some remaining CO₂ emissions can be compensated by the same amount of CO₂ uptake, provided that the net emissions to the atmosphere are zero.

Taxonomy of transformational change characteristics for Article 6



Note: Characteristics in the 'oval bubbles' are identified as particularly relevant to Article 6 cooperative approaches, other characteristics are generic taken from the ICAT Transformational Change methodology (2020)

Comparative NDC and Article 6 activity analysis: Analytical framework

Transformation characteristics	Activity level: Incentive structure for Article 6 activities to contribute to transformational impacts
GHG mitigation outcomes at scale, sustained over time, aligned with the PA temperature goal of well below 2°C	<p>Describe and promote the transformation characteristics of current conditional NDCs and long-term plans to enable enhanced ambition and safeguard environmental integrity</p> <ul style="list-style-type: none"> • Mitigation potential • Comparison (of activity) to unconditional and conditional part of the NDC • Realistic upscaling potential • Destination of the generated carbon credits (accounting to domestic NDC or export to buyer country) • Approaches to additionality testing
SDG outcomes at scale, sustained over time, aligned with the 2030 Agenda global goals and Planetary Boundaries (PB) framework	<p>Identify and address country- and sector-specific just transition challenges with regard to priority SDGs and PBs</p> <ul style="list-style-type: none"> • Accounting of SDG benefits and alignment with SDG reporting • Availability of safeguards against adverse effects in development and on planetary boundaries
Technology change - <i>digitisation</i>	<p>Explore and describe a use-case of how transformative impacts of technology including digitalization in an Art. 6 activity can enable up-scaled, transformative impacts</p> <p>Broader technology development</p> <ul style="list-style-type: none"> • Clear understanding of technologies that have high/low abatement costs in the sector • Compatibility of technologies with SDGs and PBs → no negative effects • Compatibility of technologies with the necessary decarbonisation pathways that may go beyond the current NDC objective → minimisation of risk for fossil fuel lock-in • Consideration of technology lifetime <p>Digitalisation</p> <ul style="list-style-type: none"> • Interoperability of systems • Introductions of apps • Digital payment methods

Comparative NDC analysis

Transformation characteristics	Activity level: Incentive structure for Article 6 activities to contribute to transformational impacts
<i>Normative change - dynamic baselines</i>	<p>Explore and describe a use-case of a dynamic baseline to inform development of Article 6 incentive structures and provisions for transformative impact</p> <ul style="list-style-type: none"> • Baseline approach • Determination of sectoral baseline: Building on BAU or NDC reference scenarios <ul style="list-style-type: none"> • Regular updating of NDC data (e.g. policy-cycle based) • Timeframes of updates • Design principles of baselines (e.g. conservativeness, parameters, cycles) • Implementation of additionality testing • Definition of additionality • Length of crediting periods • Implementation of crediting thresholds • Technology-related considerations (e.g. technology lifetime)
<i>Agents of change - government and private sector</i>	<p>Show through comparative case studies, how government and private sector can cooperate to promote transformative outcomes and processes</p> <ul style="list-style-type: none"> • International or domestic • National capacities in the sector • Private sector investment security • Integration of sectoral MRV at national NDC level • Gradual phase-out of Article 6 funding → funding used as catalysator
<i>Incentives for change - carbon pricing</i>	<p>Explore and describe through case studies of carbon pricing how to create incentive structures and provisions for transformational impact</p> <ul style="list-style-type: none"> • Reference to carbon pricing policies in NDCs • Price level and link to mitigation abatement costs • Reference to fossil fuel subsidies (negative carbon pricing)

Ideas and options to promote transformative impacts of A6 activities at global and activity levels

Transformation characteristics	Global level: Rules and guidance for cooperative approaches (Art. 6.2) & mechanism (Art. 6.4) & work programme (Art. 6.8)	Activity level: Incentive structure for Article 6 activities to contribute to transformational impacts
<p>GHG mitigation outcomes at scale, sustained over time, aligned with the PA temperature goal of well below 2°C</p>	<p>Countries to ensure (Art. 6.2):</p> <p>Government driven, bilateral results-based finance mechanism for policy-based crediting aligned with NDC priorities</p> <p>Supervisory Body (Art. 6.4) to enable:</p> <p>Bottom-up, market-driven price-discovery mechanism for projects and programs to scale-up known technologies</p> <p>Art. 6 activities additional to both NDC and economic business as usual, with crediting periods shorter than operational life and financially self-sustaining thereafter</p> <p>Ambition raising: NDC goal to be aligned with long-term strategy towards PA and 2030 Agenda global goals.</p>	<p>Describe and promote the transformation characteristics of current NDCs and long-term plans to enable enhanced ambition and safeguard environmental integrity</p>
<p>SDG outcomes at scale, sustained over time, aligned with the 2030 Agenda global goals and Planetary Boundaries (PB) framework</p>	<p>Guidance and tools to support countries in assessing, monitoring and reporting SD impacts of Art.6 activities.</p> <p>Text provisions in the Art. 6 'rulebook' to ensure safeguards against negative impacts incl. stakeholder consultation.</p>	<p>Identify and address country- and sector-specific just transition challenges with regard to priority SDGs and PBs</p>

Ideas and options (cntd.)

Transformation characteristics	Global level: Rules and guidance for cooperative approaches (Art. 6.2) & mechanism (Art. 6.4) & work programme (Art. 6.8)	Activity level: Incentive structure for Article 6 activities to contribute to transformational impacts
Technology change - <i>digitisation</i>	Digitisation of MRV and registries to enable results-based and digital payments for transparency, efficiency and upscaling of dispersed, small-scale installations (e.g. EE cookstoves and solar PV)	Explore and describe a use-case of how digitisation in an Art. 6 programme can enable up-scaled, transformative impacts
Normative change - <i>dynamic baselines</i>	Crediting baselines at program level (dynamic over the medium to long-term, i.e. >5 years) to reflect and incentivise long-term emission reduction pathways and NDC alignment with the PA global temperature goal, avoid lock-in effects	Explore and describe a use-case of a dynamic baseline to inform development of Article 6 incentive structures and provisions for transformative impact
Agents of change - <i>government and private sector</i>	<p>Enable private sector participation in national and global emissions trading through Article 6 cooperation</p> <p>Foster innovation and bottom-up initiatives through institutional design</p>	Show through comparative case studies, how government and private sector can cooperate to promote transformative outcomes and processes
Incentives for change - <i>carbon pricing</i>	<p>Work programme to promote a level playing field for emissions trading through putting a price on GHG emissions, and fossil fuel subsidies.</p> <p>Requires effective communication of benefits of carbon pricing.</p>	Explore and describe through case studies of carbon pricing how to create incentive structures and provisions for transformational impact

Thanks!

Karen Holm Olsen, UNEP DTU Partnership
Senior Researcher, kaol@dtu.dk

Breakout session 3: Promoting sustainable development and mitigation synergies, while safeguarding planetary boundaries and trade-offs for ambition raising and transformational impact

Guiding questions:

1. Should SD tools and approaches for SD(G) assessment be mandatory or voluntary at international level or developed at national level under the prerogative of host countries to best promote sustainable development through Article 6 carbon markets?
2. Could the planetary boundaries and the social foundation framework help avoid burden shifting and safeguard or avoid negative impacts?
3. What text provisions would you like to see in the Article 6 negotiation text from COP25 in Madrid to ensure sustainable development is promoted in the final COP26 decision for Article 6 and/or in §77d of the ETF?

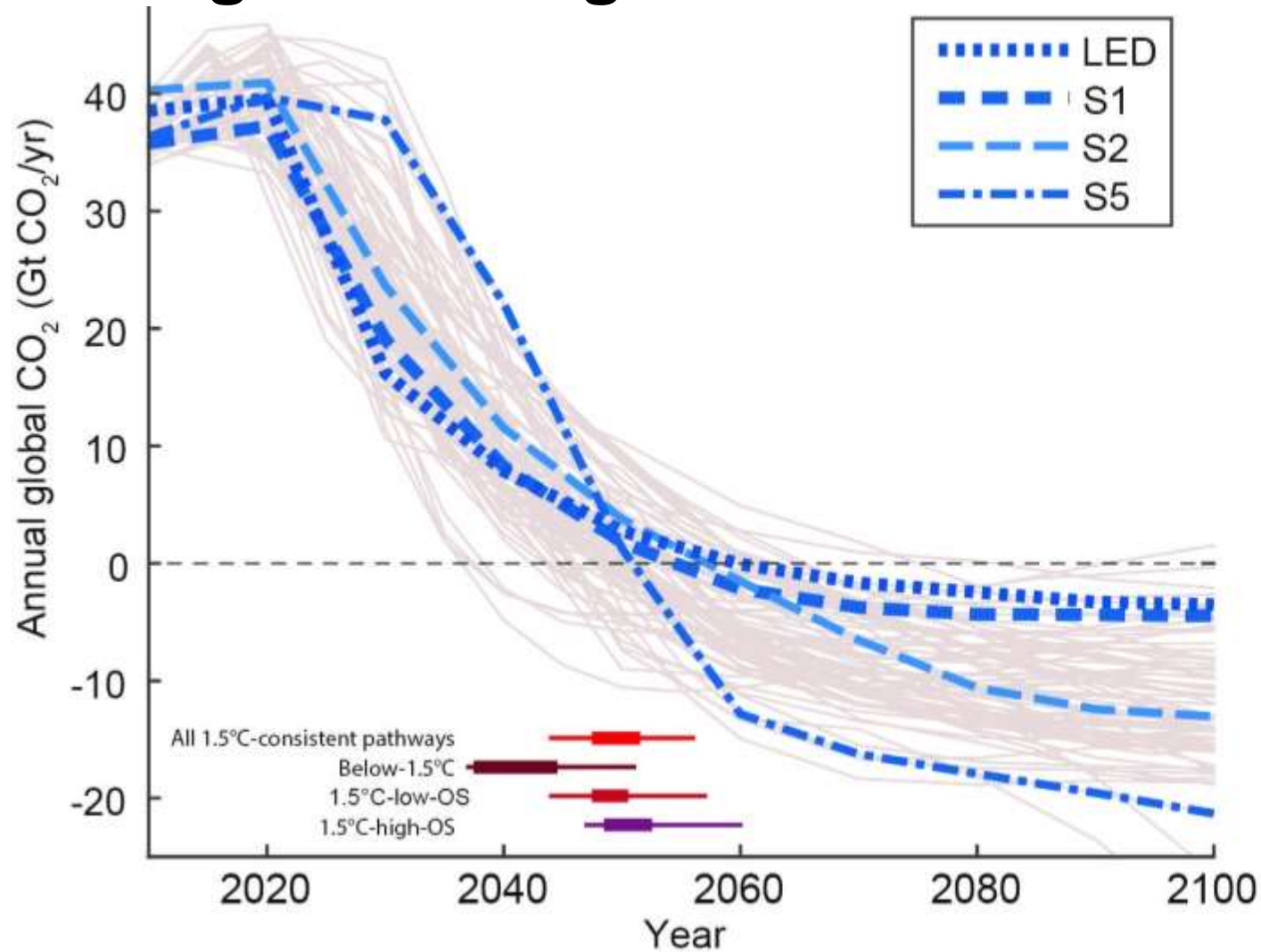
Assessments of absolute sustainability – Supporting decisions for acting within a safe and just operating space

Morten W. Ryberg (moryb@dtu.dk)

Quantitative Sustainability Assessment (QSA) group

DTU Management, Technical University of Denmark (DTU)

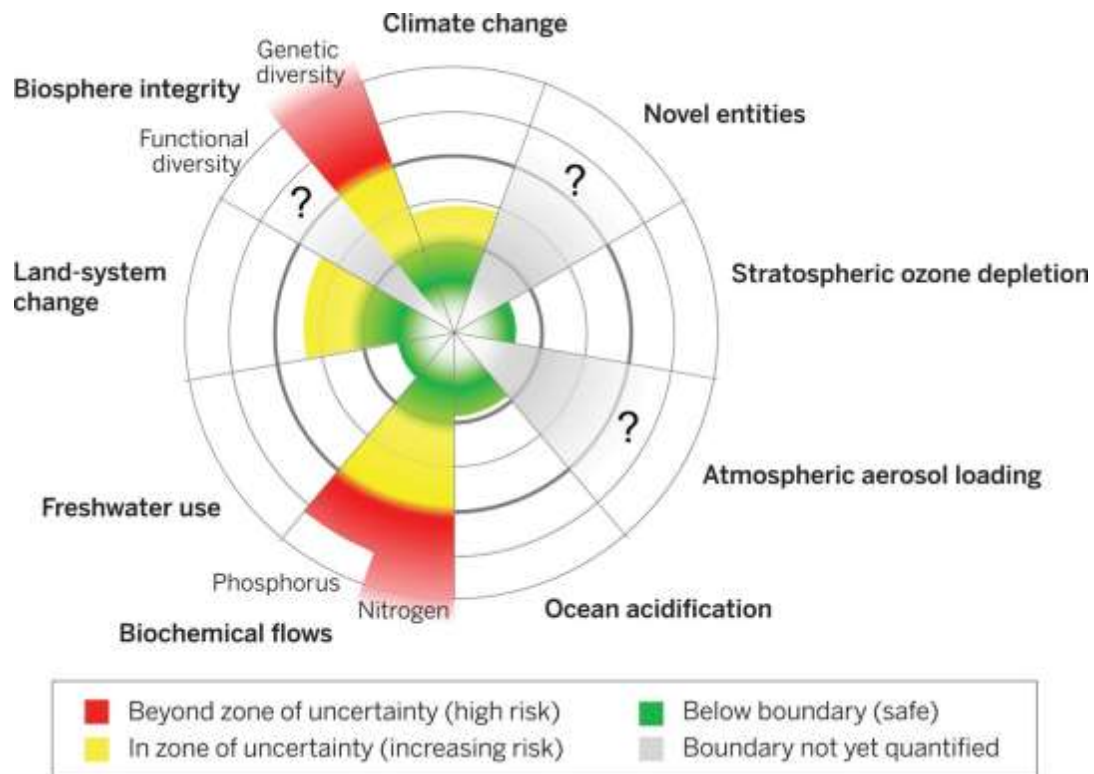
Achieving 1.5 °C target



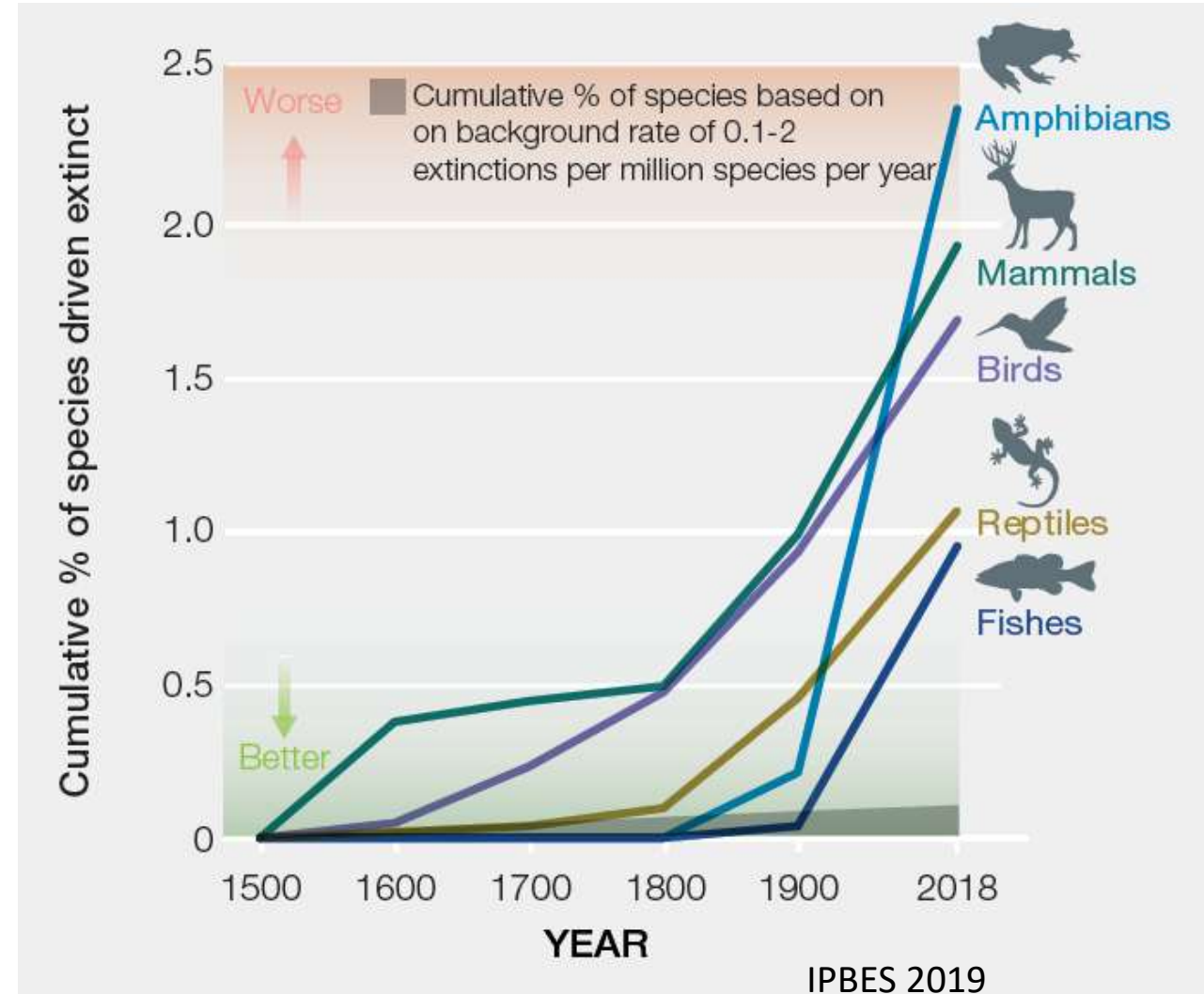
IPCC, 2019

Avoid shifting the burden

- Climate is key, but not everything
- Biodiversity seriously threatened
- Need for holistic assessments



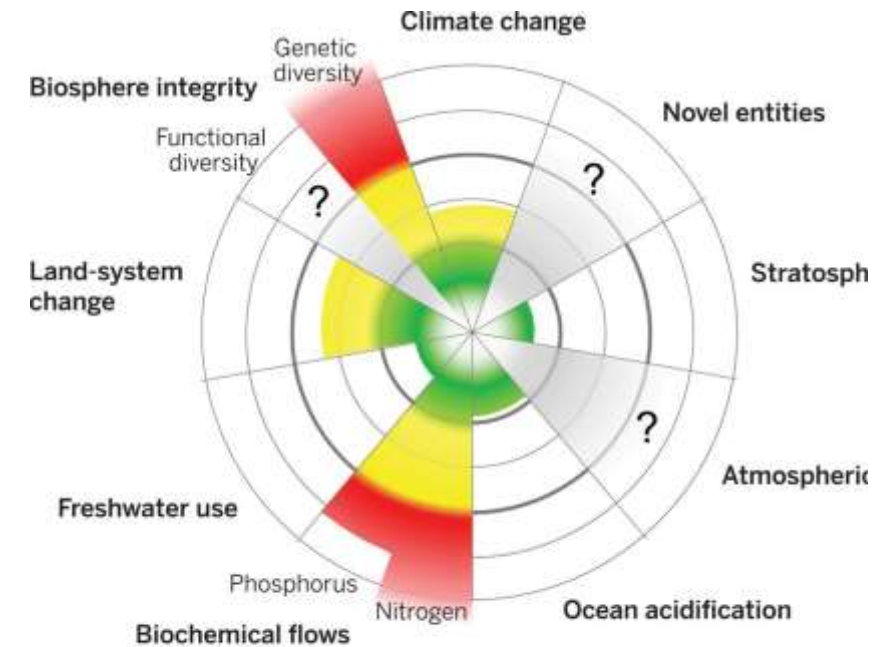
Steffen et al. 2015



Absolute Environmental Sustainability Assessment (AESAs)

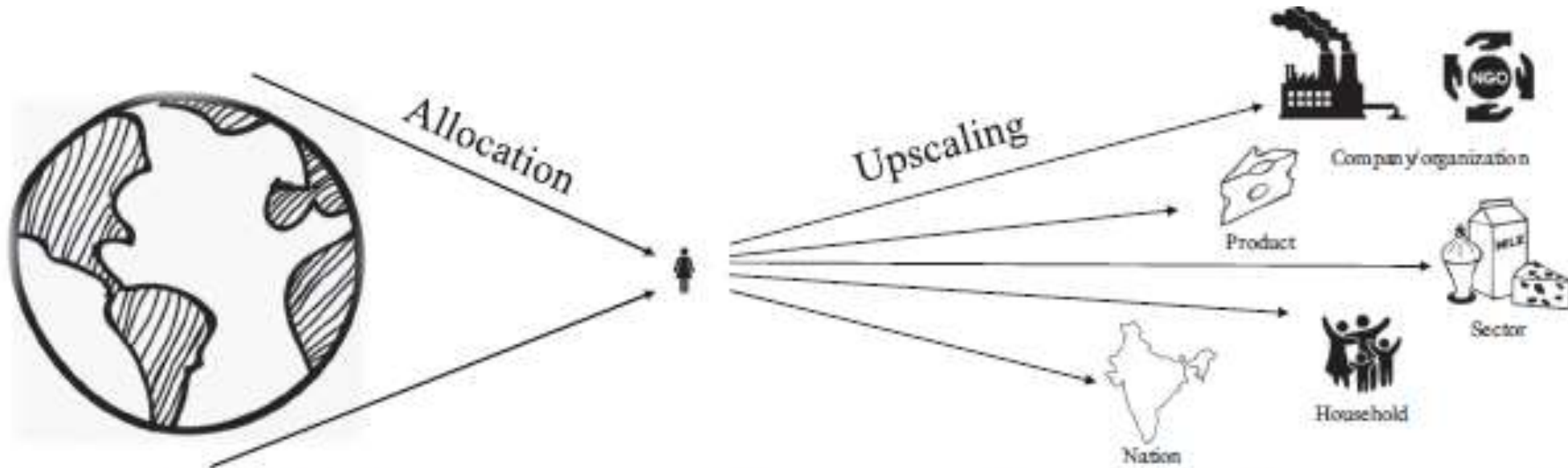
- Assessing all relevant environmental impacts using a life-cycle perspective
- Assigning a share of the safe operating space to an activity
- Relating impacts to the assigned share of safe operating space

$$\frac{\textit{Activity's Impact}}{\textit{Assigned share} \times \textit{Planetary boundary}} \leq 1$$



Assigning the safe operating space

- Egalitarian - Equal per capita sharing of the budget (as a scarce resource)
- Utilitarian based – Sharing among industry based on the wellbeing they bring to people



Hjalsted et al., 2021

- Other approaches are possible
 - Not operational
 - Not just

Quantifying impacts across the life-cycle

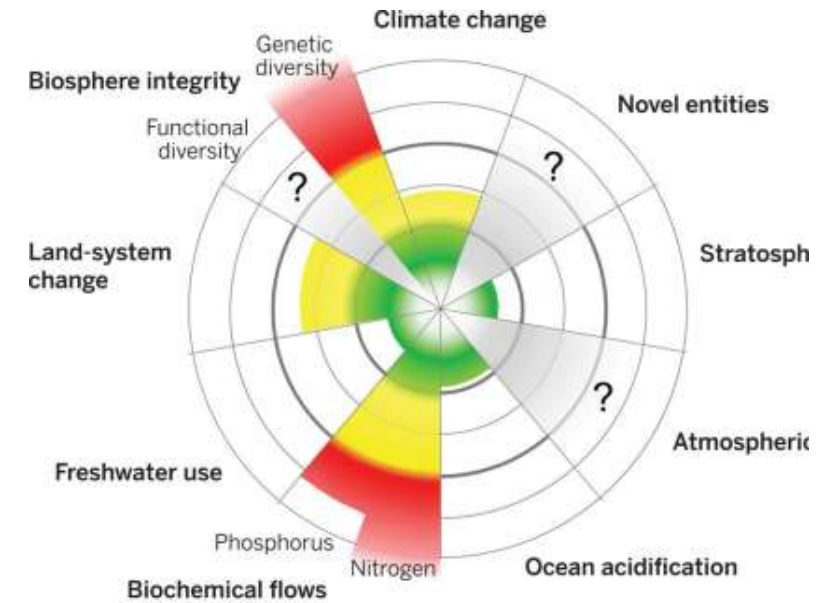
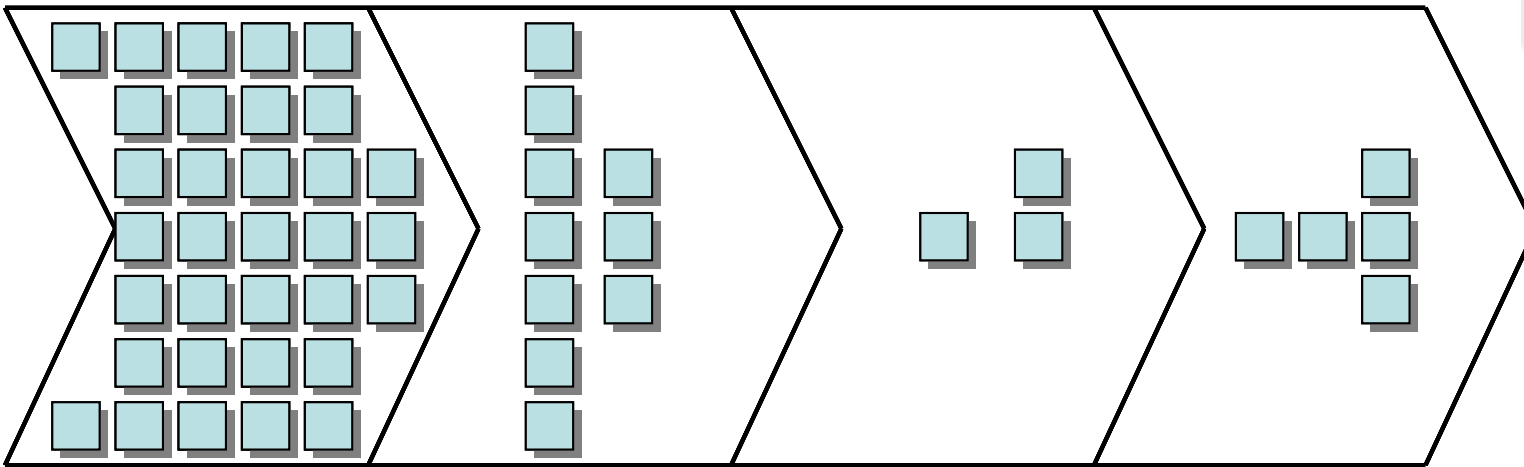
- Provide a system perspective
 - Consider all relevant processes
 - Consider all relevant environmental impacts
 - Avoid shifting the burden / Evaluate trade-offs

Materials and components

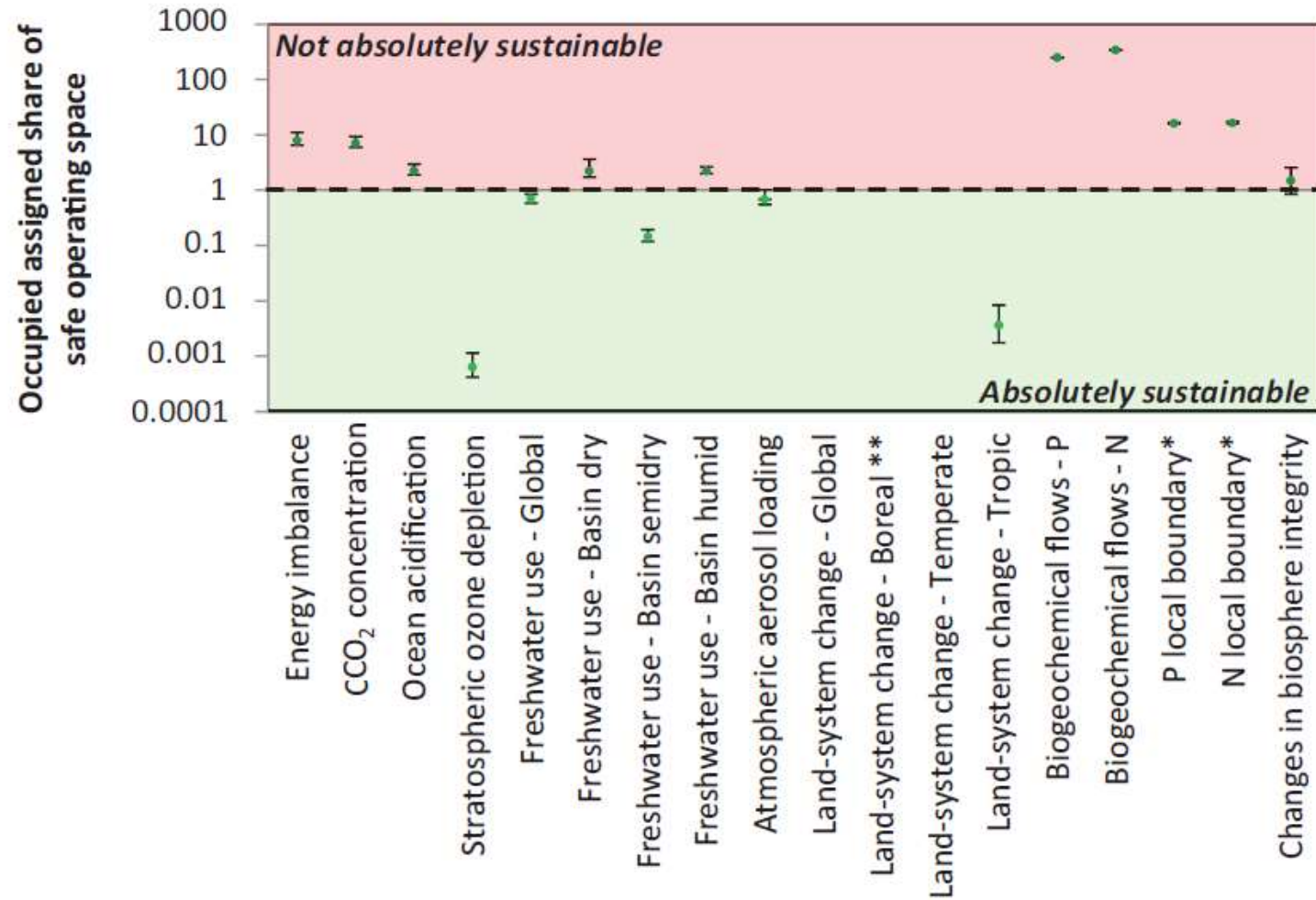
Manufacture

Use and maintenance

Recycling and disposal



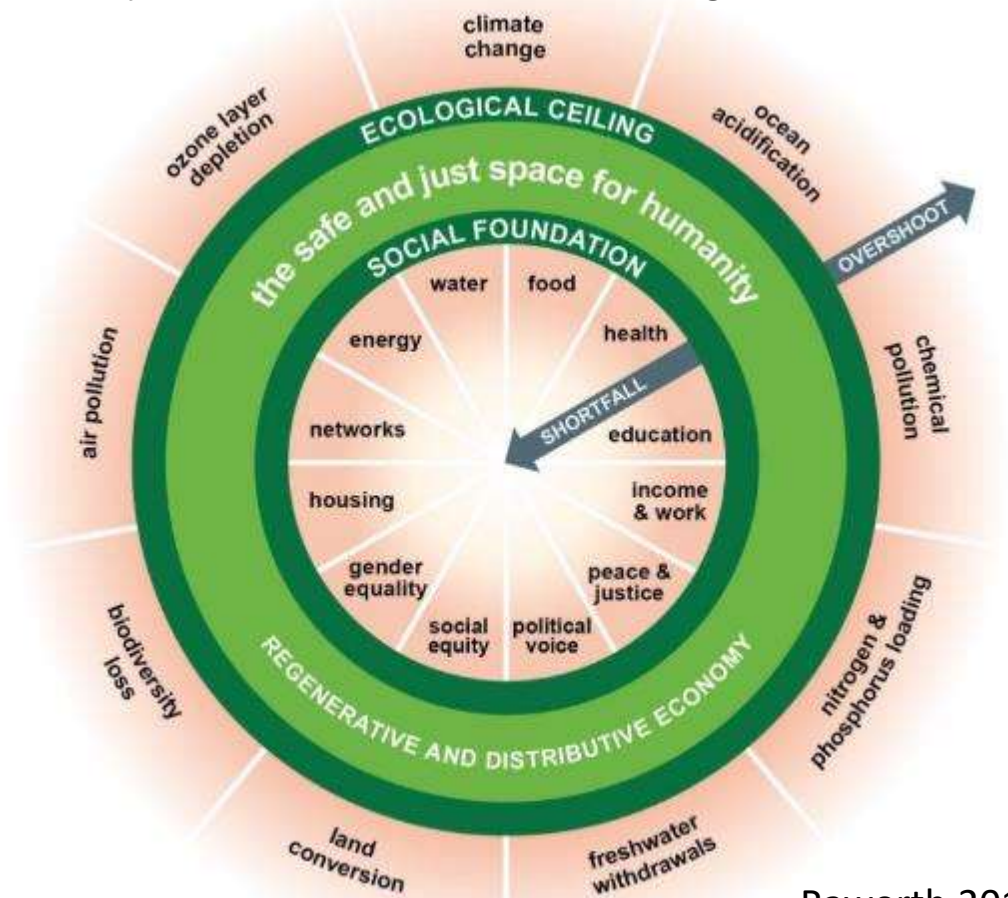
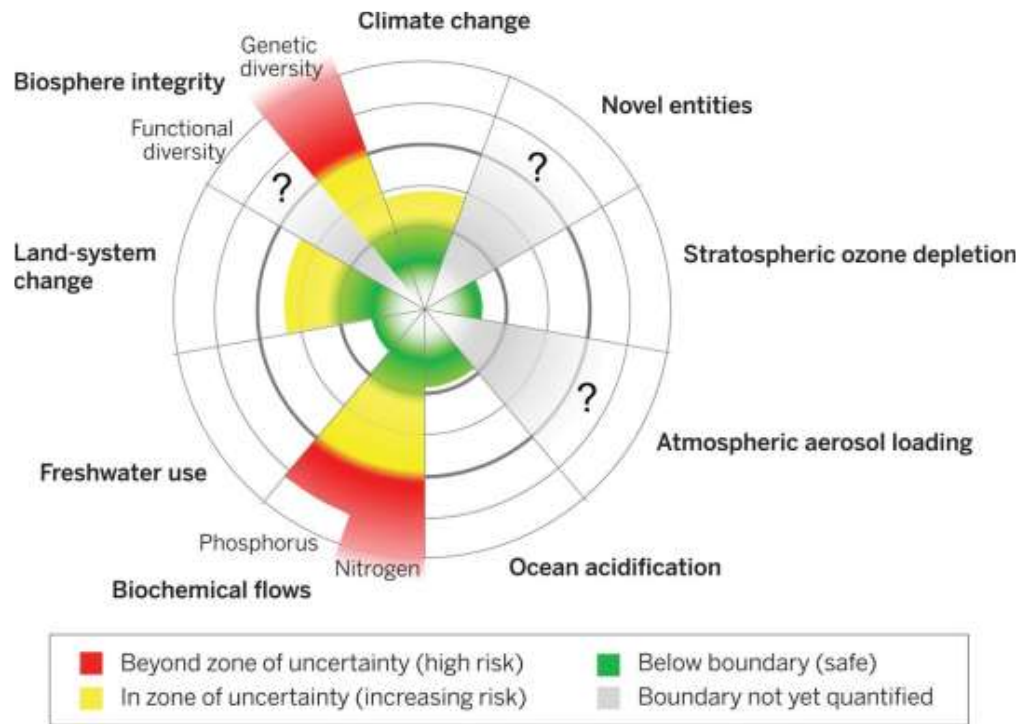
Absolute Environmental Sustainability Assessment



Ryberg et al., 2020

Safe and just operating space

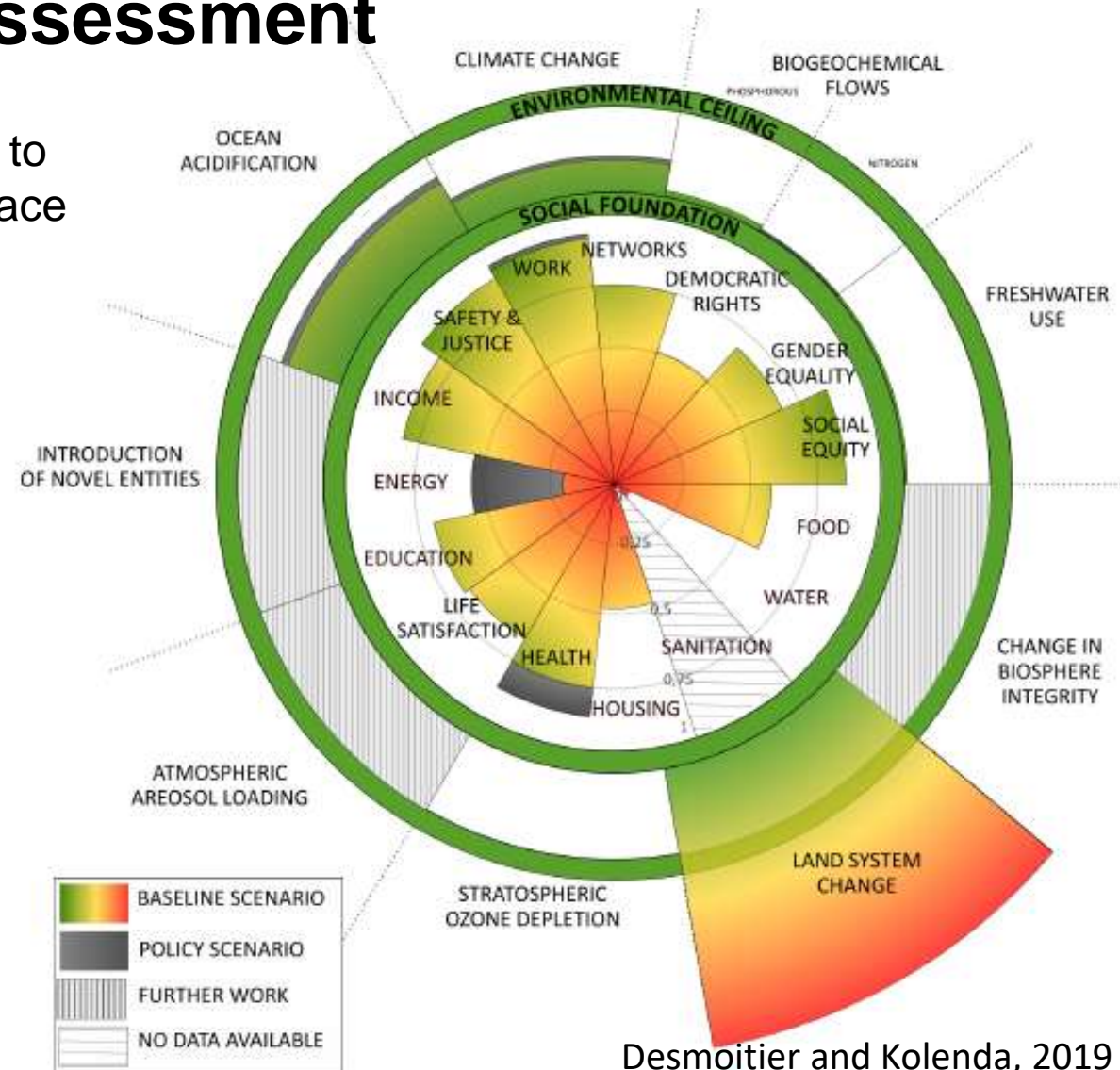
- Defining context specific scalable social sustainability indicators, incl. local and global scale



Raworth 2017

Absolute Sustainability Assessment

- Assessment of human activities contribution to staying within the safe and just operating space
 - Still in development



Desmoitier and Kolenda, 2019

Conclusions

- Able to quantify activities' impact and how far they are from being sustainable
 - The impact of transformational changes
- Avoid potential burden shifting

- Use as part of strategic planning
 - Deriving evidence-based targets for becoming sustainable
 - Creating roadmaps for achieving sustainability

- Allow decision makers at different scales to actively contribute to staying within a safe and just operating space

References

- Desmossier, N. and Kolenda, M. (2019) A safe and just space for humanity: Assessing environmental and social impacts of policies on an absolute scale. Master Thesis. Technical University of Denmark
- Hjalsted, A. W., Laurent, A., Andersen, M. M., Olsen, K. H., Ryberg, M., & Hauschild, M. (2020). Sharing the safe operating space: Exploring ethical allocation principles to operationalize the planetary boundaries and assess absolute sustainability at individual and industrial sector levels. *Journal of Industrial Ecology*, jiec.13050. <https://doi.org/10.1111/jiec.13050>
- IPBES. (2019). *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (C. N. Díaz, S., Settele, J., Brondízio, E.S., Ngo, H.T., Guèze, M., Agard, J., Arneth, A., Balvanera, P., Brauman, K.A., Butchart, S.H.M., Chan, K.M.A., Garibaldi, L.A., Ichii, K., Liu, J., Subramanian, S.M., Midgley, G.F., Miloslavich, P., Molnár, Z., Obura, D, ed.). Bonn: IPBES secretariat.
- IPCC. (2019). *Global Warming of 1.5 C An IPCC Special Report on the Impacts of Global Warming of 1.5 C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways*. Geneva.
- Raworth, K. (2017). *Doughnut Economics: Seven Ways to Think Like a 21st-century Economist*. Random House.
- Ryberg, M. W., Bjerre, T. K., Nielsen, P. H., & Hauschild, M. (2020). Absolute environmental sustainability assessment of a Danish utility company relative to the Planetary Boundaries. *Journal of Industrial Ecology*. <https://doi.org/10.1111/jiec.13075>
- Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., ... Sorlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223), 1217. <https://doi.org/10.1126/science.1259855>



From conceptual options to strengthen the transformational impact of Article 6 to introducing an incentive structure

Stephan Hoch and Juliana Kessler
Perspectives Climate Research

May 31, 2021

Agenda

- Conceptual options for safeguarding transformational impact**
- Conceptual options for strengthening the transformational impact**
- Multi-layer incentive structure for Article 6 activities**
- Implications for Article 6 design and implementation**
- Conclusion**

Conceptual options for safeguarding transformational impact

Design options that prevent compromising NDC ambition and integrity

- **Safeguards against negative impacts on sustainable development**
 - MRV infrastructure, minimum SD requirements, negative lists, impact assessments at different stages of development etc.
- **Safeguards against overselling, e.g. non-additional MOs or ‘low-hanging fruit’**
 - Retaining a share of MOs
 - Pricing potential opportunity costs if the marginal cost of a specific mitigation activity is lower than the marginal cost of meeting the NDC goal
- **Safeguards against perverse market incentives on NDC formulation**
 - Prevent generation of ‘hot air’ through stringent additionality/baseline setting
- **‘Outside NDC’ activities and perverse incentives not to expand NDC scope**
 - Inclusion in NDC updates, stringent additionality test/baseline setting on activity level

Conceptual options for strengthening the transformational impact

Mitigation outcomes at scale, sustained over time

- Need to **redefine additionality for all activities** in light of NDC: Regulatory additionality, target additionality (re unconditional NDC target), financial additionality
- Promote **shift to upscaled activities**: sector and policy crediting
 - Differentiated approach to additionality testing depending on activity type
- Sharing of MOs

SDG outcomes at scale, sustained over time

- **Enhancing MRV systems for SD impacts** to achieve a market differentiation for activities with high SD impacts
- Developing a **revised SD Co-Benefits tool** for the A6.4M and an ex-ante assessment of potential SD contributions
- **Stronger emphasis on safeguards** needs to go hand in hand with mandatory **stakeholder consultation processes**, also for Article 6.2

Conceptual options for strengthening the transformational impact

Technology change and digitalisation

- Only 'high-hanging fruit' to be supported by carbon finance → development of positive list that identifies such technologies
- Short crediting periods generate long-term benefits for the host Party: Crediting periods linked to payback period necessary to mobilise the technology
- Digitalisation as key enabler of MRV frameworks, digital payment methods

Normative change: Reflecting global mitigation aspirations in baselines

- Performance-based benchmarks for stringent baseline setting → BAT-derived performance benchmark for certain technologies in homogenous sectors
- Article 6 methodologies to include more dynamic baseline setting
 - Option 1: Building on key parameters which are estimated ex-ante but credits are issued for ex-post calculations of these parameters based on collected and validated data
 - Option 2: Baseline emissions intensity to decrease over time through the application of an ambition coefficient

Conceptual options for strengthening the transformational impact

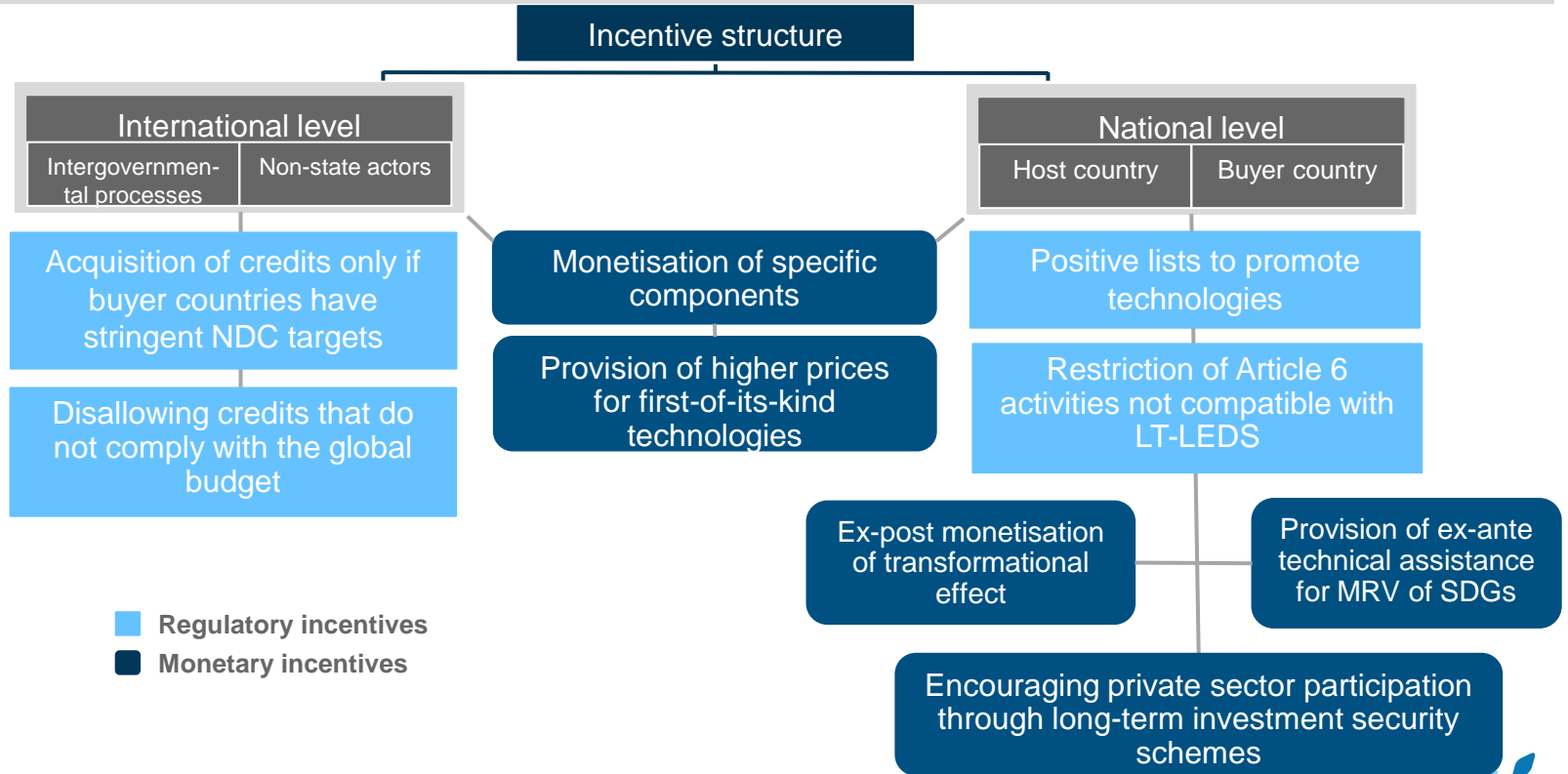
Public-private cooperation

- Governments to allow private sector to participate in international carbon markets (as supplier or buyer) and support private sector (e.g. certainty on price expectations, TA, long-term contractual agreements)
- Government to establish and maintain links to the implementation level (Art.6 governance, NDC tracking)

Incentives for change: Carbon pricing

- Remove incentive structures that undermine efforts made through carbon pricing instruments, e.g. fossil fuel subsidies
- Consideration of using credits against a domestic carbon pricing instrument based on international or voluntary standards or sub-national frameworks

The multi-layer incentive structure for Article 6 activities

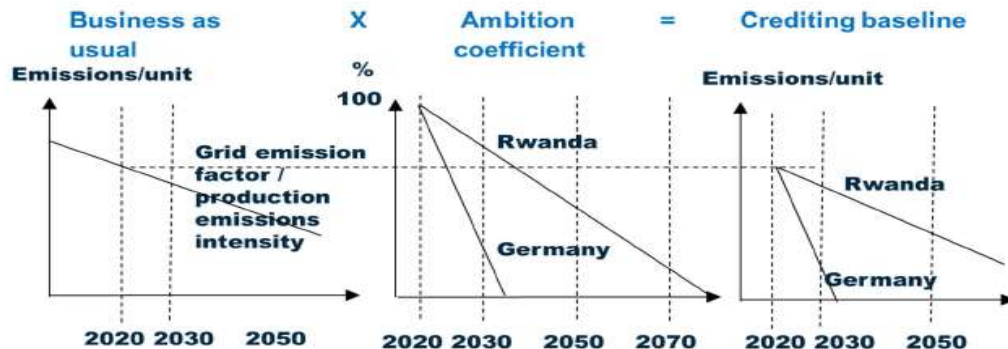


Implications for Article 6 design and implementation

- **Additionality for transformational impact**
 - Need to **reinterpret additionality** not only in the context of NDCs but also of LT-LEDS
 - Move towards **what 'ought to become BAU'**
 - Use of negative and positive lists at global or national levels can be one way to do so
 - **Consultative process** that uses transparent indicators and consults national and sectoral stakeholders should be established
 - Positive lists at the national level need to be **updated frequently in fixed intervals**, preferably aligned with NDC implementation periods
 - **Positive lists to consider transformational change criteria**, e.g. potential of the activity to drive transformation and increase NDC ambition

Implications for Article 6 design and implementation

- **Dynamic and stringent approaches to baseline setting**
 - Dynamic approach in itself not a guarantee for transformational change → key is how **baseline stringency is changing over time**
 - Performance-based benchmarks for stringent baseline setting → **BAT-derived benchmarks** for certain technologies in homogenous sectors
 - Alignment of baselines with the PA's long-term targets though the application of '**ambition coefficient**' which considers the ***Common but Differentiated Responsibilities and Respective Capabilities*** principle



Implications for Article 6 design and implementation

Considerations for dynamic and stringent baseline concepts



Incentives

Lower volume of generated carbon credits requires higher carbon prices to remain attractive for project developers



Predictability

Project developers require reasonable degree of certainty about expected carbon revenues for taking investment decisions → balance between predictability and stringency could be restored by combining ex-ante fixed declines in baseline parameters and updates to all baseline parameters at the point of crediting period renewal



Resources and capacity

Development of BAT benchmarks and standardised baseline setting is resource-intensive → Significant resources will be required at the level of the A6.4 SB and potentially the Regional Collaboration Centres to build the institutional capacity of host Parties

Conclusions

- **Transformational change is essential to achieving the goals of the PA, but there are no agreed metrics/methodologies for TC impacts**
 - Article 6 landscape more diverse than KP Mechanisms: potential & challenges
- **Carbon market principles need to be revisited to strengthen TC**
 - safeguards to mitigate negative impacts
 - Systematic assessment and reward for SDG/TC benefits,
 - Additionality and dynamic baselines (balance bw stringency and predictability)
 - Aligned MRV systems for NDC/SDG accounting and reporting (institutional capacity)
- **Market differentiation:** Transformational activities depend on **the willingness to pay**
- **UNFCCC rules - voluntary initiatives (SJ principles, buyer clubs, VCM)**

Thank You!

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Transformation & Article 6

Session 2: Establishing an incentive structure for transformational change

Brief introduction of the three case studies

Perspectives Climate Research

UNEP DTU Partnership

First Climate



Agenda

1. **Morocco:** Organic Waste to Energy activity
2. **Costa Rica:** Modal shift to non-motorized transport
3. **Pakistan:** Integrating Article 6 in competitive power auctions
4. Brief summary of the **case study results**

Article 6 activity case study Morocco: *Organic Waste to Energy*

- Activity aims to **generate energy from organic waste** in food processing between 2021 and 2030;
- Organic waste is converted into biogas in **anaerobic biodigesters**, and the biogas is then used to produce combined **heat and power**;
- Co-benefits such as **reduced landfill leachate and groundwater contamination**, job creation, improved resource efficiency, raising awareness about waste treatment;
- Avoided methane emissions intended to be certified and sold as **ITMOs**, with the **KliK foundation** slated as the compliance buyer;
- Current status: Activity **pre-selected by KliK** and currently in the **concept development phase**;
- Activity contingent upon Morocco and Switzerland signing a **bilateral agreement**.

Article 6 activity case study Costa Rica: *Modal shift to non-motorised transport: Urban cycling in two municipalities in San José*

- Activity consists of the **development and promotion of urban cycling** in the municipalities of Curridabat and Montes de Oca, San José;
- Goal to make space for bikes and build a network of bicycle paths, thus, stimulating the **use of bikes for short-distance commuting**;
- **Four phased approach:** (1) training and data collection from consolidated urban cycling communities, (2) data analysis, (3) design of infrastructure interventions and reg. Incentives, (4) implementation;
- Integrated into a more comprehensive sustainable transport intervention
- MRV aspects undertaken with support from **ICAT** based on their **Transformational Change Methodology**;
- Upscaling of similar activities could be designed as an Article 6 program going forward, especially due to its transformational aspects and **alignment with long-term decarbonisation goals.**

Article 6 activity case study Pakistan: *Integrating Article 6 into power auctions for renewable energy*

- **Conceptual case study** to assess how A6 can be integrated into **competitive auctions** for renewable energy in Pakistan;
- Goal to accelerate technology deployment through an effective price discovery mechanism;
- Crucial to achieve increasing the **share of renewables to 60% by 2030**;
- Explorative assessment indicates the transformative and mitigation potential that renewable power auctions have;
- Scrutiny is required when it comes to setting baselines (below BAU) and crediting periods in order to generate transformative impact → **positive and negative lists** could be a viable approach;
- Policy is likely to set a precedent for how investments can be mobilised towards capital-intensive technologies beyond renewable energies.

The comparative Article 6 activity case study analysis

Comparing the case studies

Transformation characteristics	Observations
GHG MOs at scale, sustained over time, aligned with the PA temp. goal	<ul style="list-style-type: none"> • Article 6 activity designs engage with the need to redefine additionality in the context of the NDCs • Activities build on existing policies and expand them further to develop sectoral pathways to align with PA goal • Further additionality testing will play an important role • Activities do not set perverse incentives which work against the expansion of the host country's NDC scope <ul style="list-style-type: none"> • Morocco and Pakistan: Activities could be integrated into unconditional NDCs part during next NDC revision • All activities show upscaling potential and MOs at scale
SDG outcomes at scale, sustained over time, aligned with 2030 Agenda	<ul style="list-style-type: none"> • All activities build on national SDG priorities • Establishment of safeguards against negative impacts on SDGs has minimal role • PB concept can be operationalised in the form of SBT when setting baselines; however, this approach is conceptual and difficult to operationalize at activity level
Technology change and digitalisation	<ul style="list-style-type: none"> • All Article 6 activities promote technology change, although digitalisation is not at center • Transformational impact of the Article 6 activities can be increased through enhanced digitalisation – innovative tracking (Costa Rica), MRV/payments (Pakistan). • Better integration of MRV systems at the local and activity level into the National MRV system
Normative change – (dynamic) baselines	<ul style="list-style-type: none"> • Assessed Article 6 activities make use of short crediting periods compared to the technical lifetime of technologies, thus generating OMGE through long-term mitigation outcomes for the host Party • In case crediting baselines are not set in a stringent manner (at least below BAU), other Article 6 MADD aspects can help to cushion this effect; e.g. sharing of MOs (Morocco)
Agents of change – government and private sector	<ul style="list-style-type: none"> • More complex and interwoven roles of public and private entities emerge compared to the project-based KP mechanisms

PAKISTAN'S ENGAGEMENT IN ARTICLE 6 READINESS ACTIVITIES AND PILOTING

International workshop: Fostering transformational change through market approaches under the Paris Agreement

Syeda Hadika Jamshaid,
Ministry of Climate Change, Pakistan
31st May 2021

DEVELOPMENT PRIORITIES OF PAKISTAN

Sustainable
Economic
Growth

Poverty
reduction

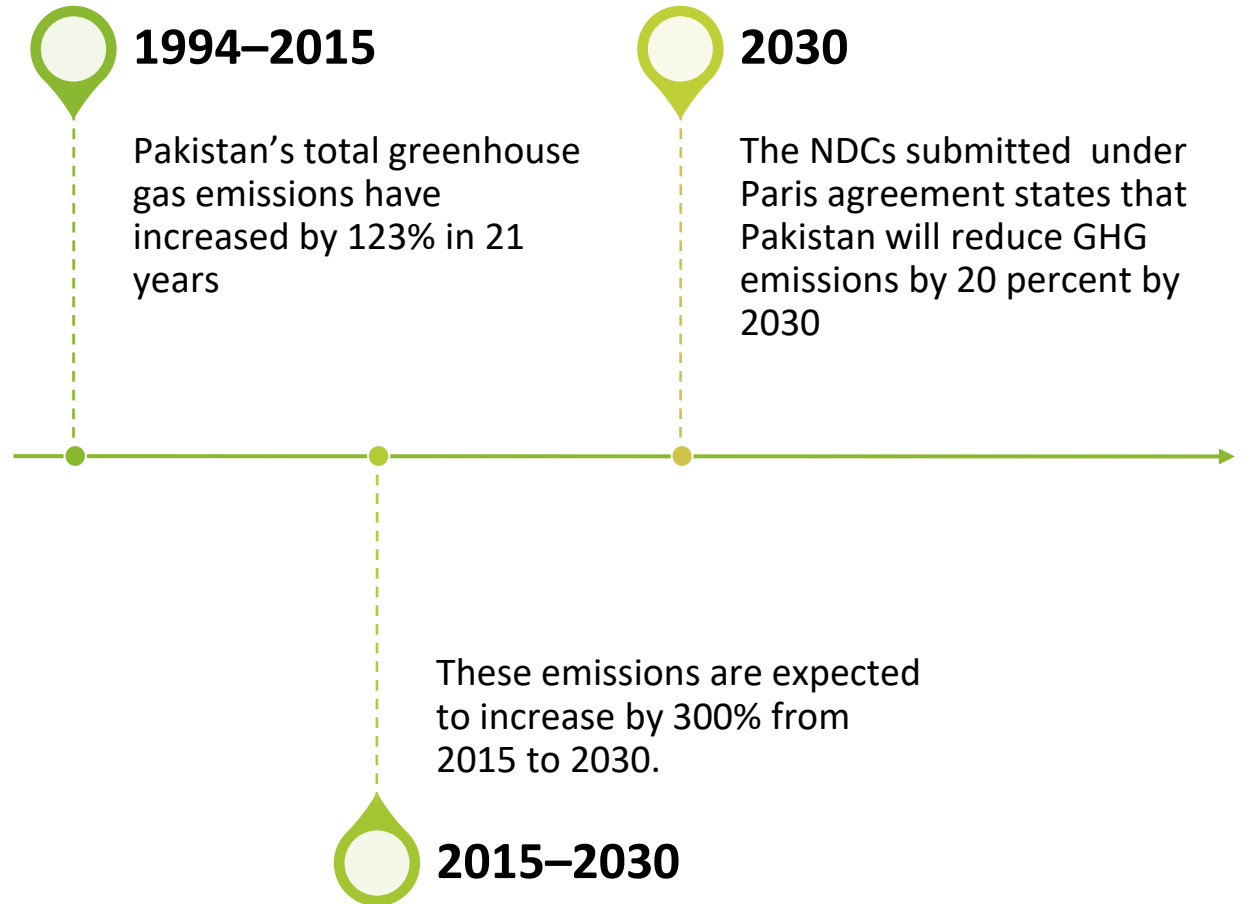
Job creation

Enhanced
competitiveness

Food security

Energy access

GHG Emissions



WHY IT MATTERS FOR PAKISTAN?

Achieving NDC
Targets

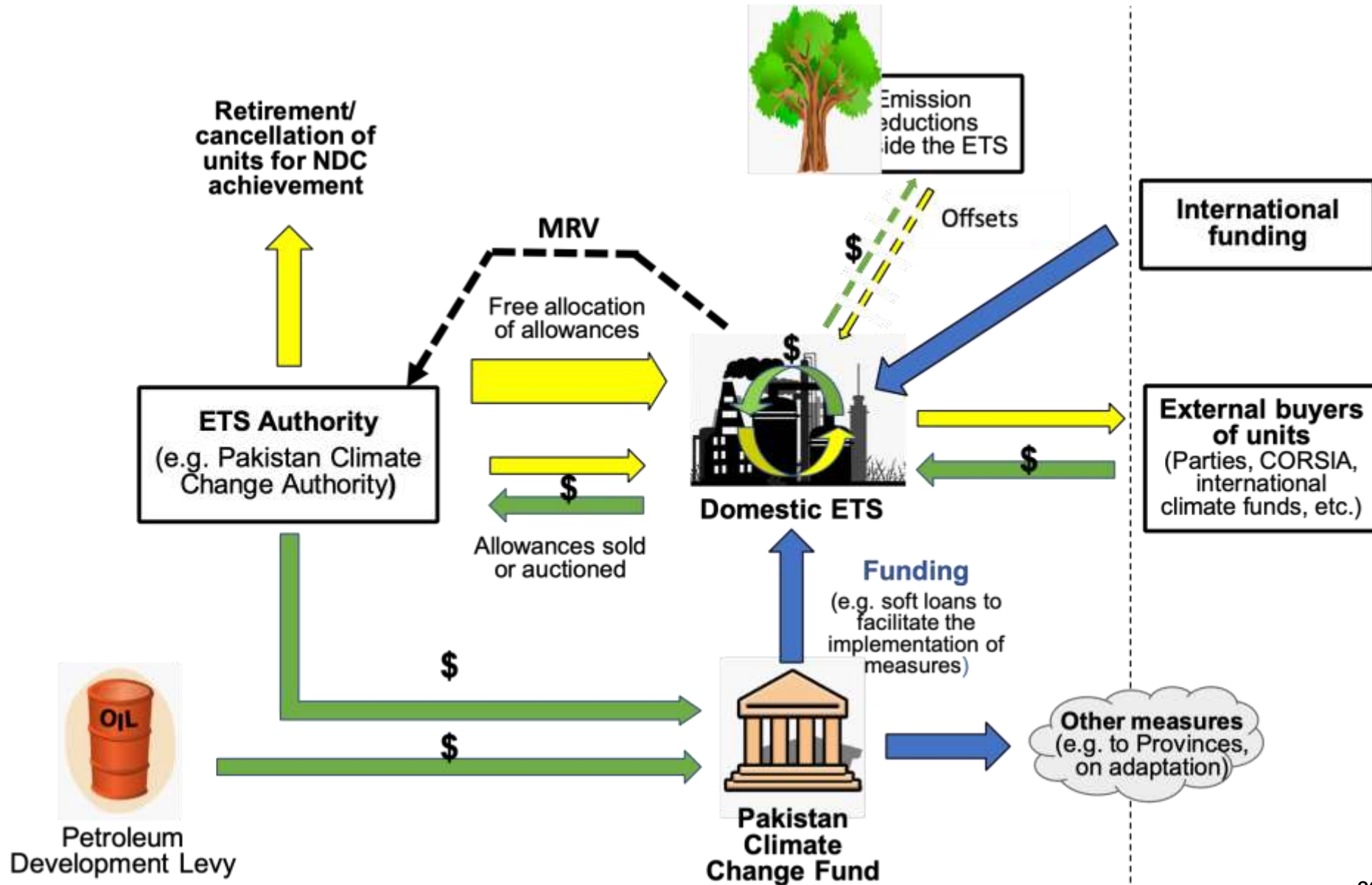
Navigating
Investment for
Efficient
Technologies

Reduce Health
impacts and
Cleaner air

Carbon Credits
Trading

Low Carbon
Economy

UNFCCC Study: Proposed architecture for carbon pricing in Pakistan



NATIONAL CARBON MARKET ESTABLISHMENT COMMITTEE (NCEC)

1

Increasing
sources of
revenue;

2

Spurring
investment into
innovative
technologies;

3

Introducing
new financial
product in the
market;

4

Engaging the
private sector in
addressing
climate change;

5

Becoming part of
the global carbon
market and;

6

Communication
Strategy

Planned Activities

- Revision of NDCs
- Designing domestic ETS framework
- MRV infrastructure and procedures- Roadmap, action plan and activities for further implementation
- Carbon pricing communication strategy
- Capacity building and training of the relevant stakeholders

GOVERNMENT INITIATIVE

Green Jobs - Green Stimulus

Ecosystem Restoration Fund

Electric Vehicle Policy

Clean Green Pakistan Movement

Pakistan Clean Air Program

Blue Carbon Assessment

Natural Capital Accounting

Pakistan has many untapped opportunities for GHG reduction and carbon markets can set scene for Pakistan to trade carbon credits through these projects benefiting country to transit to low carbon economy



CONCLUSION

Understand that different carbon pricing instruments, such as carbon tax and ETS, have their advantages and disadvantages. The best instrument is one that meets a country's objectives.

COVID-19 has implications for climate action. Carbon pricing can generate fiscal resources and green jobs to support sustainable recovery in the medium term.

International carbon markets can channel finance.

Putting a price on carbon must be and can be fair and just, but needs a pragmatic approach to deal with equity issues and potential regressive impacts (e.g. how to use carbon revenues).

Effective communication strategies are needed to highlight the multiple co-benefits of carbon pricing.

Putting an economic value on the losses

International cooperation and sharing of best practice is critical to achieve cost efficiencies in mitigation.

Thank you

Syeda Hadika Jamshaid

Climate Change Expert