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System Change

Transformative design of Article 6 programmes for net zero emissions by 2050

By Mathilde Kolenda and Karen Holm Olsen, UNEP DTU Partnership, Owen Hewlett, Gold Standard Foundation and Sven Braden, Independent Consultant

Sustainable development (SD) enables the fundamental societal and systems transformations required to limit global warming to 1.5°C above preindustrial levels (IPCC, 2018). Importantly, more synergies than trade-offs can be harnessed between mitigation options consistent with 1.5 degree pathways and sustainable development impacts. Despite the global goals for climate and sustainable development agreed in 2015 in the Paris Agreement and the 2030 Agenda (SDGs), five years have passed and the emissions gap is wider than ever (UNEP, 2019). Enhanced NDC ambition to reach net zero emissions by 2050 is still severely lacking (Hermwille and Obergassel, 2018), as only 15 countries have, for now, submitted their updated NDCs (UNFCCC, 2020). At such a critical time, cooperative mechanisms envisaged in Article 6 of the Paris Agreement to allow for NDC ambition raising represent an opportunity to make use of transformative, science-based pathways to achieve the global goals and ensure environmental integrity in carbon trading.

To understand the concept of transformational change and operationalize how to assess the transformational impact of policies and actions, the Initiative for Climate Action Transparency (ICAT) has developed the ICAT Transformational Change Methodology as part of a series of assessment guides for tracking progress in NDC implementation. The ICAT definition of transformational change is as follows:

“A fundamental, sustained change of a system that disrupts 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 SDGs.” (ICAT, 2020b)

An example of how the transformational change concept and methodology is used by countries can be seen in the case of Costa Rica. The government of Costa Rica has adopted a national Decarbonisation Plan to achieve net zero carbon

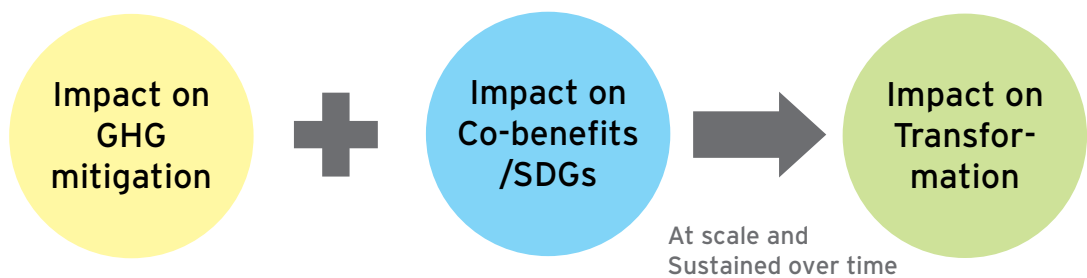


Figure 1: Co-benefits for SD as a result of mitigation actions implemented: Potential for achieving transformational change. Derived from (Mora, 2020)

1 Net zero carbon implies that some remaining CO₂ emissions can be compensated for by the same amount of CO₂ uptake, provided that the net emissions to the atmosphere are zero.

The Sustainable Development Initiative (SDI)

The Sustainable Development Initiative (SDI) aims at promoting strong provisions on sustainable development for the rulebook of Article 6. The initiative is a collaboration of UNEP DTU Partnership and the Gold Standard Foundation supported by Belgium, Finland, Germany, Norway and Sweden. Views stated in the adjacent article those of the authors of this text and do not represent any consensus among the Parties involved.



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emissions by 2050 (Government of Costa Rica, 2018). With the support of UNEP DTU Partnership as an ICAT implementing partner, Costa Rica is in the process of developing its enhanced transparency system to track progress in NDC implementation. Ten focus areas have been identified to achieve decarbonisation, for which respective transformational visions have been set out.

For example, by 2050, electric power from renewables such as solar and wind will be a primary source of energy for transport, residential, commercial and industrial services. The ICAT Transformational Change Methodology together with the ICAT Sustainable Development Methodology (ICAT, 2020a) will be adapted and integrated into SINAMECC, an open access digital metric system, to track progress in NDC implementation as shown in Figure 1.

In other words, if the implementation of climate mitigation actions leads to co-benefits for SD, with both outcomes sustained over time, this could trigger the transformational change potential of mitigation actions (policies, plans or projects) that is needed. This simple framing could also apply to the Article 6 context and

would strongly support the integration of sustainable development in carbon-market activities to trigger transformational change.

With the two historical international agreements in place, we (theoretically) have at our disposal the necessary collective action framework to embark on a sustainable path (IPCC, 2018). Such ambitious global goals for climate and sustainable development cannot happen without radical transformations at every scale of society, across all sectors of the economy and in all political and social spheres – all supported by technological and cultural innovations and changes in lifestyles (TWI2050, 2018).

Promoting sustainable development in Article 6 mechanisms and beyond

Article 6 of the Paris Agreement, with the overarching goal to incentivise voluntary cooperation between Parties to raise the ambition of their climate action over longer time scales, also explicitly calls for contributions to sustainable development as a central objective (Article 6.1). However, lessons learned from the Clean Development Mechanism (CDM) under the Kyoto Protocol show that adequately promoting and assessing

sustainable development impacts of climate actions was a challenge, particularly due to a lack of international guidance on and support for the use of voluntary SD tools and approaches (Olsen, Arens and Mersmann, 2018).



Source: Assembly: Canada Installs Solar Panels by DOE Solar Decathlon (<https://flic.kr/p/aom34B>)/Flickr/CC BY-NC ND (<https://creativecommons.org/licenses/by-nd/2.0/>)

Transformative design: Article 6 activities should make use of transformative, science-based pathways to achieve the global goals

To avoid a ‘race to the bottom’ for sustainable development as happened in the early days of the CDM (Sutter and Parreño, 2007), guidance on how to clearly and transparently assess and report on sustainable development is critical (Braden, Olsen and Verles, 2019). To bridge this gap, Gold Standard, founded in 2003, has pioneered robust SD principles and approaches, applied in both the voluntary and compliance markets. As of 2020, Gold Standard has committed to the release of ‘next generation’ SDG-oriented impact reporting tools that will standardise reporting of co-benefits.

Currently, fully integrating SD provisions in an Article 6 context remains a crunch issue. A recent analysis on ‘Views on Sustainable Development provisions in the Art. 6 rulebook draft from COP25 in Madrid’ shows that, since 2018, SD provisions in the current draft negotiation text for Article 6.2 appear weaker than laid out by the initial mandate of the Paris Agreement (Braden and Olsen, 2020). So far, sustainable development for Article 6 remains at the periphery of negotiations (Michaelowa et al., 2019). Nevertheless, as partners of the Sustainable Development Initiative (SDI), we argue that treating sustainable development as an equally important an outcome as GHG mitigation will support the transformative design of Article 6 activities. Article 6 mechanisms can indeed serve as a ‘leg-up’ to a transformational, well below 2 degree pathway (Hermwille and Obergassel, 2018).

The SDI earlier identified six issues relevant to promoting sustainable development based on Party submissions to the negotiations on the Article 6 ‘rulebook’, namely governance, safeguards, stakeholder inclusivity, SD indicators, SD assessment and transparency (the six Policy Briefs are available on the initiative’s website, see box). With regard to SD assessment, the SDI carried out a study to evaluate which tools and approaches would best fit the Article 6 SD provisions, including amongst others the ICAT Sustainable Development Methodology and the Gold Standard for the Global Goals (GS4GG). The alignment of both these approaches with the SDG framework may enable market players to comply with host Party and buyer requirements to promote sustainable development through Article 6. To promote synergies with national implementation of the 2030 Agenda, avoid fragmentation and high transaction costs for SD assessment, the SDI recommends the use of internationally agreed approaches based on the globally agreed indicator framework for the SDGs (Braden, Olsen and Verles, 2019).

As an example, the Gold Standard published in August 2020 a policy brief for future carbon markets, highlighting that a specific project may have access to a number of newly fragmented market opportunities (Gold Standard, 2020). Gold Standard VERs themselves could be adopted for use in Article 6 (either issued as 6.2 or labelling of 6.4) or for use in compliance schemes such as CORSIA. In all potential use cases, consistency of approaches and maximised flexibility is essential. Hence, if consistency can be created, the approaches to sustainable development and transformational change outlined in this paper have application beyond the Article 6 use cases envisaged in the Paris Agreement. Put differently, whether a project and its issuance is for Article 6, CORSIA, voluntary markets or domestic markets, the same principles can apply and in applying them we can maximise the opportunities for good mitigation actions to obtain appropriate funding and be used in the correct way.

Uptake of transformational change by carbon market funds and investors

The concept of transformational change has already been taken on by several international climate funds, such as the Green Climate Fund,

but also by several carbon market mechanisms and investors. Early movers in the piloting of 6.2 activities for cooperative approaches, such as Foundation for Climate Protection and Carbon Offset (KliK) and the Transformative Carbon Asset Facility (TCAF), have also embraced the concept. Yet, the way these institutions understand and operationalise transformational change differs.

For example, TCAF promotes the concept of transformational change from an economic theory perspective through clearly defined criteria for transformative operations, such as:

1. Size of the project,
2. Sustainability, through the different angles of technology (Paris alignment, no fossil fuel lock-in), policy (policy change), finance (reliable exit strategy), potential for replicability within the country on its own,
3. Leverage to increase domestic ambition, and
4. Carbon pricing, including implicit pricing (TCAF, 2018).

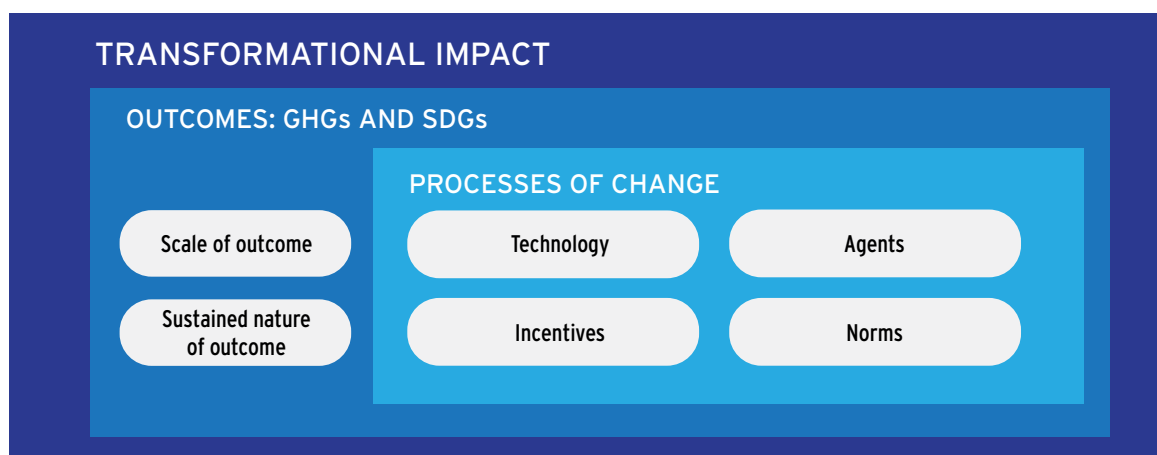


Figure 2: Layers of transformational impact assessment (ICAT, 2020b)

Despite its clear conceptualisation framework, TCAF has so far not been able to implement an active pipeline of Article 6 pilots.

The concept of transformation is not always central to the mandates of the institutions. In fact, KliK's primary mandate is to achieve mitigation while facilitating Article 6 activities for Switzerland. Its field of action is well delimited by the CO₂ Act of Switzerland and therefore the selection of the programme activities cannot primarily depend on the potential to trigger transformative change. Subsequently, within KliK, projects are neither selected nor benchmarked. Instead, windows of opportunity are identified to drive transformation, and transformation principles are to be included in the design of the activity. In terms of Article 6 piloting, KliK is, as of today, one of the most advanced institutions (cp. the interview "Long-term engagement" is key elsewhere in this issue)².

When it comes to defining what is considered transformational or what is sustainable development, carbon mechanisms and investors are cautious about their being normative, often positioning them as 'buyer preference' despite the demonstrable benefits of incorporating them. This runs along the lines of not infringing national prerogatives. For example, TCAF defines sustainable development separately from transformational change and it is always in the hands of the host countries to define SD objectives in their national context, often in agreement with buyers interested in safeguarding and promoting SD goals. In that regard, host governments have a key role to set SD objectives and put their achievement high

on the political agenda. The SDI fully acknowledges the national prerogative also respected in the context of the 2030 Agenda and, rather than seeing a conflict with Article 6 voluntary guidance and support to promote sustainable development, we see opportunities to promote synergies and interlinkages and avoid duplication of effort.

Towards an operational definition of transformational impact for Article 6

Arguably, assessing transformational impact could be a way to overcome some of the crunch, unresolved issues such as 'additionality', although further research is urgently needed (Hermwille and Obergassel, 2018). The ICAT Transformational Change Methodology presents a framework for operationalising the assessment of transformational impact, as depicted in Figure 2, which can be applied in an Article 6 context. In particular, outcomes of change are characterised based on their scale and sustained nature, both for GHG emissions and for SDGs. Overall, the ICAT suggested framework is well suited for application in an Article 6 context.³

Promoting transformational impacts for Article 6 approaches

Innovative ideas and options for the promotion of transformation characteristics in the design of Article 6 approaches can be suggested at the global level for the development and use of rules, modalities and procedures (Art. 6.4), guidance (Art. 6.2) and a work programme for non-market approaches (Art. 6.8) as shown in Table 1.

² The interview with the KliK foundation is part of a project funded by the German Environment Agency (UBA), entitled "Transformation & Article 6: Strengthening the transformative effect of market approaches under the Paris Convention", implemented by a consortium led by UNEP DTU Partnership. The first report is to be published in late 2020/early 2021.

³ Applying the ICAT transformational change framework in an Article 6 context comes within the scope of the project funded by the German Environment Agency (UBA), entitled "Transformation & Article 6: Strengthening the transformative effect of market approaches under the Paris Convention". The results will be presented in the first report, due to be published in late 2020/early 2021.

Table 1: Overview of ideas and options to promote transformative impacts of Article 6 activities at the global level

Outcomes characteristics	Global level
GHG mitigation outcomes at scale, sustained over time, aligned with the PA temperature goal of well below 2°C	<p>Article 6.2 Government driven, bilateral results-based finance mechanism for policy-based crediting aligned with NDC priorities</p> <p>Article 6.4 Bottom-up, market-driven price-discovery mechanism for projects and programmes to scale-up known technologies</p> <p>Article 6 activities additional to both NDC and economic business as usual, with crediting periods shorter than operational life and financially self-sustaining thereafter</p>
SDGs outcomes at scale, sustained over time, aligned with the 2030 Agenda global goals and the Paris Agreement	<p>Guidance and tools to support developers in assessing, monitoring and reporting SD impacts of Article 6 activities to meet host government SD priorities (based on SDI recommendations)</p> <p>Text provisions in the Article 6 ‘rulebook’ to ensure safeguards against negative impacts, including stakeholder consultation.</p>

Outlook

After three rounds of negotiations for Article 6, the COP26 in Glasgow likely represents the last chance to finalise the Article 6 rulebook, articulating strong and compelling SD provisions in the official texts, which so far remain on the periphery of the negotiations. Hence, there is a risk of there being no clear mandate on how to promote sustainable development under Article 6, which could lead to ‘a race to the bottom for SD’, known from the CDM. However, and as the COP26 has been postponed to 2021, a whole year still lies ahead of us. This situation could cut both ways, but on the bright side, this could mean more time for promoting the importance of SD provisions in the Article 6 rulebook. Further, this window of opportunity may incentivise the transformative design of Article 6 activities and promote SD provisions in the texts.

If nothing is agreed in the next round of negotiations, cooperative approaches as framed in Article 6.2 are likely to move forward outside the official process and at an increased rate, as piloting has already started and priority is on achieving ambitious mitigation. Contrary to 6.2, the mech-

anism in 6.4 may be stuck and not agreed upon until a later date, compromising international governance and high standards for Article 6. This would increase the risk of not being able to use this tool to promote long-term ambition raising in NDCs, as initially planned in the Paris Agreement mandate.

In the meantime, the SDI continues its collaboration with early movers in the Article 6 community of practice, including private companies and national governments, to include SD assessment in Article 6.2 pilots. Hopefully, it will generate further knowledge prior to COP26 on how nationally determined SD priorities can be promoted and implemented as an effective means to trigger transformative action and NDC ambition raising.

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