Synthesis Paper

Enabling Coherence for Sustainable Land Management and Climate Policy

This synthesis paper reflects on the linkages between sustainable land management and climate change and aims at providing guidance on holistic approach to land and climate policy processes within the scope of international agendas and national actions. It offers entry points at the national level and presents solutions to current barriers in aligning these two closely interconnected, yet separate processes.

The potential of sustainable land management for climate action and food security

Healthy soils are vital for our environment. They hold benefits for food security and biodiversity, as well as mitigate greenhouse gas emissions and help to adapt to the adverse impacts of climate change. Increasing the rate of soil carbon can significantly reduce the CO2 concentration in the atmosphere related to human activity. Herewith, it is a crucial element to meet the targets of international agendas, like the Paris Agreement and the Sustainable Development Goals.

Sustainable land management within international agendas

The Special Report on Climate Change and Land (SRCCL) of the Intergovernmental Panel on Climate Change (IPCC) states that "many land-related responses that contribute to climate change adaptation and mitigation can also combat desertification and land degradation and enhance food security" (2019: p. 19; see also figure 1). In line with this, the potential of sustainable land management and increasing soil organic carbon (SOC) to mitigate climate change as well as adapting to its adverse consequences has been increasingly addressed in international policy.[1]

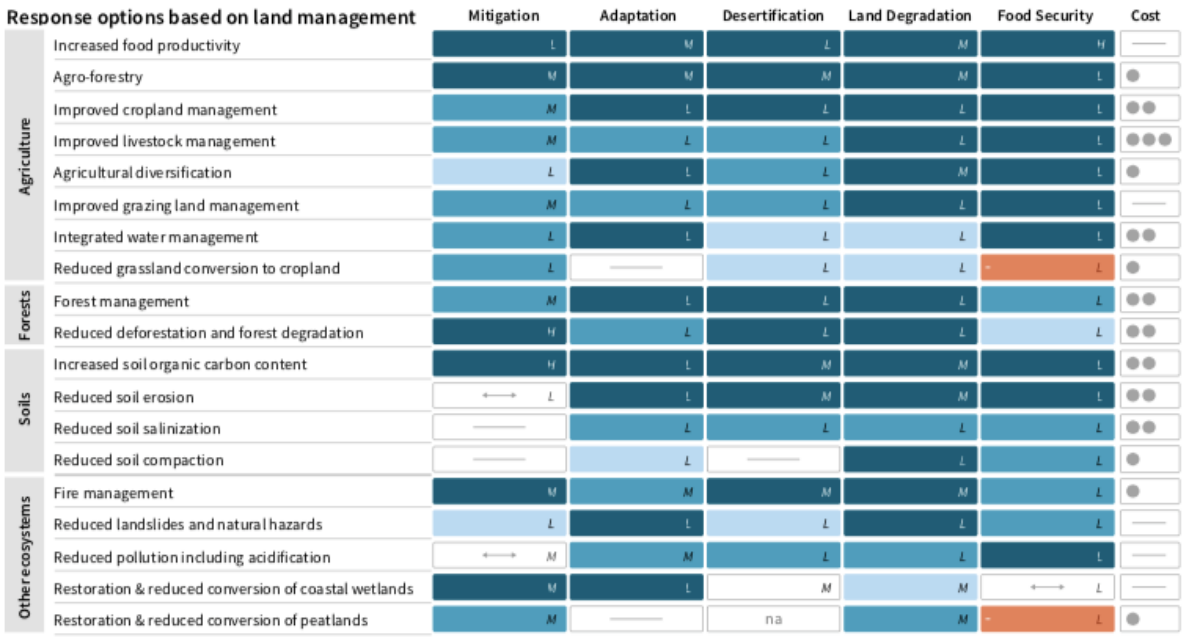
Sustainable land management is reflected in the Nationally Determined Contribution (NDC) of a number of countries as part of their efforts to achieve the goal of the Paris Agreement for Climate Change. In late 2019, about 28 NDCs referred directly to soil carbon or targets which are related more broadly to SOC, wetlands and peatlands. Also, numerous countries refer to agricultural practices which would sequester carbon without explicitly mentioning SOC (Wiese-Rozanova et al. 2020). With the **updating of NDC's in 2020** there were several intentions by countries to include SLM or soil within the next round of NDC formulation (NDC Partnership, 2020). The AFOLU sector (agriculture, forestry and land use) made up 20% of all requests to the NDC Partnership. Within these, the majority refers to sustainable land management (SLM) or forestry (50% of AFOLU requests) while only a minor percentage specifically refers to soil carbon (sequestration). Yet, the integration of SOC in NDCs remains very limited, despite its great potential for ambitious climate action. This may be due to the debate on what is achievable and how to monitor or verify improvement in SOC (Wiese-Rozanova et al., 2020). Also, countries that do not address SOC in their NDCs have sometimes significant other national policies and actions in place. [implications for NDC update to postponing COP, role of NbS in next COP (SLM as NbS measure as option)]

The **United Nations Convention to Combat Desertification (UNCCD)** passed the 2018-2030 Strategic Framework, with the particular focus on soil management. Setting targets to achieve Land Degradation Neutrality (LDN) countries developed long-term integrated strategies that simultaneously focus on the improved productivity of land and the rehabilitation, conservation and sustainable management of land and water resources. As seen in figure 1, soil organic carbon is a response option which positively contributes to the fight against desertification and land degradation while equally contributing to

[1] It is important to note that "the potential for land-related responses and the relative emphasis on adaptation and mitigation is context specific, including the adaptive capacities of communities and regions. While land-related response options can make important contributions to adaptation and mitigation, there are some barriers to adaptation and limits to their contribution to global mitigation" (IPCC, 2019).

climate targets and food security. The IPCC SRCCL states that "many interventions to achieve land degradation neutrality commonly also deliver climate change adaptation and mitigation benefits. The pursuit of land degradation neutrality provides impetus to address land degradation and climate change simultaneously" (IPCC 2019: 31).

Figure 1 Potential global contribution of response options to mitigation, adaptation, combating desertification and land degradation, and enhancing food security



Soils host quarter of our planet's biodiversity and their sustainable management is part of the UN **Convention on Biological Diversity (UNCBD).** The Convention has a cross-cutting initiative for the conservation and sustainable use of soil biodiversity which aims to increase the recognition of the essential services provided by soil biodiversity across all production systems and its relation to land management (CBD 2012). Soil organisms are responsible for performing vital functions in the soil ecosystems, ensuring food security and nutrition. In 2021, the 15th Meeting of the Conference of Parties to the CBD will adopt a Post-2020 Global Biodiversity Framework.

Target 15 of the **Sustainable Development Goals (SDG)**, especially 15.3 refers to soil and states that "by 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world". Generally, Shawoo et al. (2020) state that "[t]he goals of the NDCs intersect both positively and negatively with the SDGs; progress on climate goals can therefore either help or hinder progress on the SDGs. The success of both can be helped by policy coherence, wherein countries promote synergies and address conflicts in the implementation of both their NDC and SDG agendas".

+ Green recovery

By recognizing the importance of healthy soils for mitigation as well as adaptation, there is an opportunity for sustainable land management activities to be **financed** through climate mechanisms. This is valid for financing structures on national level, as well as for international climate funds.[2]

[2] For more information see GIZ (2018): https://www.adaptationcommunity.net/wp-content/uploads/2019/05/Sustainable-Land-Management-for-Upscaled-Climate-Action.pdf

As seen, all the listed agendas include sustainable land management and soil conservation emphasizing its cross-cutting character. “Most of the [land-related actions] assessed contribute positively to sustainable development and other societal goals (*high confidence*). Many response options […] have the potential to provide multiple co-benefits” (IPCC 2019: 20). Linking the efforts in achieving these different targets, can bring multiple benefits on all level of government.

Policy processes at the national level

Countries are expected to develop **national commitments for the implementation of international agendas in the context of national** development priorities. These include national development strategies aligned with the Sustainable Development Goal (SDG) , Nationally Determined Contributions (NDCs), climate change adaptation and mitigation strategies, strategies for combating desertification and land degradation and others. To achieve these national commitments, there are **operational vehicles**, which are plans or strategies from national to local and sector levels. These include overarching development plans, as well as plans developed for specific sectors or by sub-national authorities, such as National Adaptation Plan (NAP). Especially SLM measures are often incorporated into policies and programmes on food security, agricultural development and drought, water and forest management (GIZ, 2018).

> “Acknowledging co-benefits and trade-offs when designing land and food policies can overcome barriers to implementation (*medium confidence*). Strengthened multilevel, hybrid and cross-sectoral governance, as well as policies developed and adopted in an iterative, coherent, adaptive and flexible manner can maximise co-benefits and minimise trade-offs, given that land management decisions are made from farm level to national scales, and both climate and land policies often range across multiple sectors, departments and agencies (*high confidence*)” IPCC SRCCL 2019: 33

Aligning these different policy processes can bring various benefits like coherence, efficiency and effectiveness towards outcomes which foster climate-resilient development. Actions can be coordinated to effectively use resources while contributing to several targets enabling more ambitious target setting and implementation (source!). To minimize the risk that different agenda targets hinder each other, it is important to discuss sectoral and national priorities as well as expected outcomes to align targets. “Mutually supportive climate and land policies have the potential to save resources, amplify social resilience, support ecological restoration, and foster engagement and collaboration between multiple stakeholders” states the IPCC SRCCL (2019: 31). Addressing desertification, land degradation, and food security in an integrated, coordinated and coherent manner can assist climate resilient development and provides numerous potential co-benefits (high confidence) (IPCC SRCCL 2019: 33).

Thus, in developing and implementing national strategies, it is beneficial to align those with climate mitigation and adaptation targets). […] In particular, this will require closer communication and collaboration between environment and agriculture communities (GIZ, 2018).

There are various **challenges** in the alignment of different agendas.

i. *Awareness & Political will*: The interlinkages between SLM and climate change are often not recognized by national actors, leading to an absence of political will to align activities. This unawareness hinders the creation of synergies in implementing agenda processes.

ii. *Institutional and power dynamics within governments*: Climate change is still not perceived as a cross-sectoral issue but rather as an environmental problem. This

makes it difficult to ensure political buy-in by other relevant sectors e.g. finance or economy. Additionally, power dynamics often hinder ongoing and open exchange between different actors, hindering necessary cooperation and coordination across ministries.

iii. *Capacities to coordinate across different sectors and levels of government*: Capacities are often limited, which makes it difficult to communicate and coordinate among diverse stakeholders. Alignment requires to "speak the language" of the involved actors considering their respective interests

iv. *Limited human, financial and technical capacities:* Alignment needs human as well as financial resources, which are limited. Resources are needed to guarantee ongoing exchange and meetings

Recommendations and Good Practices for aligning SLM and climate policies

Country cases of alignment Colombia, Nepal etc. (general)

Specifically linking sustainable land management and climate

COMMUNICATION OF BENEFIT

- **Communication of benefit (awareness and political will)**
  - Communicate the benefit of linking the two agendas (but which agendas btw?)
  - Clear communication about triple value of land-climate nexus (mitigation, adaptation, livelihoods) in language that is useful for politicians (realistic, speaks to need, highlights risk, careful, build constituency, popular, generate momentum)
  - Showcase the economic figures (soil benefits for climate?)
- **Benefit of soil to reach climate targets (awareness and political will)**
  - Showcase the potential of soil management for reaching the climate targets (NDC) (if there is a potential) (from climate perspective)
- **Benefit of climate to upscale soil (awareness and political will)**
  - Showing the benefits of the climate popularity, public awareness of climate, funding opportunities etc which can be used for upscaling soil activities (from soil perspective)
- https://www.adaptationcommunity.net/wp-content/uploads/2020/01/A-New-Narrativ-for-Resilient-and- Climate-Smart-Societies.pdf

FACILITATE COMMUNICATION BETWEEN THE LEVELS AND SECTORS

- **Facilitate communication (institutional and power dynamics)**
  - speaking the "language" of the other
- **Build awareness**
  - Build awareness about the need that all levels/sectors of government are needed to address cross-sectoral policy problems such as climate change
  - Focusing on countries that show strong political will for transformation, that will serve as role models (cover different regions)

CROSS-SECTORAL STRUCTURES

- **Cross-sectoral structures (awareness and political will)**

    - supporting/collaboration with intersectoral commitees/structures/legal institutions as part of the Policy making process or as institutions supporting gov // promoting collective responsibility across government
- **Cross-sectoral structures (institutional and power dynamics)**
    - Encourage, where possible, the participation in, or creation of the NDC/climate policy through an NDC coordination mechanism - this implicitly recognizes the inter-disciplinary nature of climate change, and climate policy solutions.
- **Cross-sectoral structures (capacities to coordinate across sectors and levels)**
    - Encourage the creation of, or participation in, NDC coordination mechanisms that include multi-sectoral engagement as well as cross-ministerial coordination - inclusion of private sector and NGO's is ideal. Such mechanisms can reduce duplication of efforts and streamline processes.
    - Fostering horizontal and vertical institutional integration
    - Adopt a multi-level coordination approach, create incentives, clear responsibilities and a mandate

HIGH LEVEL COMMITMENT

- **Get high-level commitment (awareness and political will)**
    - Linking soil to national development priorities and global commitments (SDG, NDC)
    - Help political leaders to identify the synergies and handle the trade-offs in order to identify with a more holistic and integrated approach and maybe a narrative that works for them politically.

SHARE EVIDENCE

- share evidence of opportunities for afolu sector (for climate policy?) **(awareness and political will)**
    - see Regional publications on Gaps and Opportunities for the AFOLU sectors by FAO (see http://www.fao.org/climate-change/our-work/what-we-do/ndcs/en/)
    - Ex-ante tool to show the potential easily and to work on different scenarios (eg. The EX-ACT tool and other similar tools)
- **Stocktaking Exercise**
    - Do a clear stocktaking exercise of what is already existing to avoid reinventing the wheel and learn how to overcome already experienced obstacles

TAILOR MADE CD, PEER TO PEER EXCHANGE **(limited human, financial and technical capacities)**

- We still need Trainings and Workshops, but we might change the way they are organized. In the recent years there is more coordination through the group of Friends under the UNFCCC to ensure no duplicate topic. Also need to work on the "selection"/"nomination"of the participants to avoid participant just attending for the travel and support received.
- capacities within the administrative systems/ ministries are not aligned to address NDCs Projects are also often not allowed to come up with multi ministiral partnerships. so while drawing the project concept the multi ministry partnership needs to be considered
- Science-policy-interfaces, peer-to-peer learning and south-to-south-exchange to foster learning between countries facing similar problems and with similar socio-economic, biophysical and climatic circumstances
- More tailor-made capacity development products to address countries/stakeholders needs. Certain CD- products are too generic and not country/region specific

Other

- Really need to use the full potential of the Koronivia Joint Work on Agriculture: there is a nowadays a stronger community of negotiators/specialist aware of the challenges faced by agriculture. The process should not end next COP.
- coordination fatigue - find motivating factors to reboost coordination efforts
- The ownership of the process should really be increased, increasing the responsabilities of the different ministries involved.

a. transfer learning from other "sectors"
b. links to best practice examples

Discussion:
IPCC (2019: 32) Due to the complexity of challenges and the diversity of actors involved in addressing land challenges, a mix of policies, rather than single policy approaches, can deliver improved results in addressing the complex challenges of sustainable land management and climate change (*high confidence*). Policy mixes can strongly reduce the vulnerability and exposure of human and natural systems to climate change (*high confidence*). Elements of such policy mixes may include weather and health insurance, social protection and adaptive safety nets, contingent finance and reserve funds, universal access to early warning systems combined with effective contingency plans (*high confidence*)

Actors working on the soil-climate nexus, processes mapping and literature

With the **Koronivia Joint Work on Agriculture**, the topic of agriculture and soil is structurally anchored within the political climate sphere. As an addition to NDCs and National Adaptation Plans they seek to drive transformation within food and agricultural systems. Fostering agriculture as a solution for climate change mitigation and adaptation, they support a sustainable management of soils to help communities to be more resilient and sequester carbon. The subsidiary bodies report on the progress at the upcoming COP26 in 2021 (FAO, 2020a).

The **4p1000 initiative** was launched at COP21 (2015) to demonstrate that agriculture and particularly agricultural soils can play a crucial where food security and climate change are concerned. The initiative invites all stakeholders (public, private sector) to transition towards a productive, resilient agriculture, based on the appropriate management of lands and soils. An annual growth rate of 0.4% in the soil carbon stocks, or 4‰ per year, in the first 30-40 cm of soil, would significantly reduce the CO2 concentration in the atmosphere related to human activities.

4 PER 1000
SOILS FOR FOOD SECURITY AND CLIMATE

GLOBAL SOIL PARTNERSHIP

The **Global Soil Partnership** (GSP) is a globally recognized mechanism established in 2012. The mission is to position soils in the Global Agenda through collective action. The key objectives care to promote Sustainable Soil Management and improve soil governance to guarantee healthy and productive soils, and support the provision of essential ecosystem services towards food security and improved nutrition, climate change adaptation and mitigation, and sustainable development (FAO, 2020b).

NAP Global Network

The **National Adaptation Plan (NAP) Global Network** supports developing countries to advance their NAP process to help accelerate climate change adaptation efforts around the world. The Network was established in 2014 at the 20th session of the Conference of the Parties (COP 20) in Lima, Peru, initiated by adaptation practitioners from 11 developing and developed countries.Today, the NAP Global Network connects over 1,200 participants from more than 140 countries working on national adaptation planning and action.

The CGIAR Research Program on Climate Change, Agriculture and Food Security (**CCAFS**) seeks to address the increasing challenge of global warming and declining food security on agricultural practices, policies and measures through strategic, broad-based global partnerships.

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