

June 17th, 2023

Removal activities under the Article 6.4 mechanism

Terra LTD response to information note

Dear Supervisory Board:

Terra is grateful for the opportunity to provide feedback on the Article 6.4 Supervisory Body's [Information note on Removal activities under the Article 6.4 mechanism Version 04.0.](#)

Terra is a natural-based Carbon Dioxide Removal (CDR) initiative focused on wetland restoration through rewetting and rewilding converting polluting agriculture to climate agriculture by developing MRV platform and projects. Our platform operates in three key domains: (1) Restoration and Operation, (2) Measurements, MRV, (3) Credit issuance & trade.

Our MRV approach is based on collecting ground-truth data in-situ to be used for training remote sensing based algorithms to create dataset that represent the full project area. Above this dataset we use an algorithm to optimize removal by maximizing CO2 sequestration and minimizing GHG emissions. Terra is based in Israel and currently active in Israel developing the "terra-santa" project, converting fishponds to function as wetland agriculture. Our aim is to work worldwide.

One of the most promising natural-based CDR solutions is blue carbon, which refers to the carbon sequestered by coastal wetlands. The land-water interface of wetlands proves to be one of the best carbon sinks on earth. Terra takes this approach one step further by building a platform that enables a massive scale carbon removal while supporting biodiversity and additional mitigation values.

Approximately 25% of the earth's surface is made up of wetlands that were drained in the last 200 years, a significant portion of it is used for polluting agriculture. By converting even a small percentage of drained wetlands back to their natural state, and practicing climate agriculture instead, we can remove more than 1 Gigaton of CO2 per year.

Wetland restoration also increases biodiversity, mitigates floods, purifies water, creates green preserves for the growing population, and provides new income sources for farmers and remote communities.

Above the basic carbon credit model we develop new types of revenue model layers, for example: harvesting the above ground biomass and making biochar from it, producing energy from the processes, natural fertilizer, and increasing the project sequestration rate since we allow the biomass to grow next year again.

Our vision is to build a scalable solution that is akin to an "Shopify" for farmers, where we partner with landowners and provide them with all the necessary means to rewild their property and manage it as a carbon sink. The farmer gets a digital shop that manages measurements and data, suggests optimization actions and does the trading. The platform also provides plugins (such as biochar) and access to professional services by experts (for example rewetting and rewilding service).

Terra's objections to the Supervisory Info Note:

- The Info note's conclusions are inconsistent with current IPCC accounting guidance and acknowledgement of the need for gigatonne scale CDR in coming decades. It misrepresents the benefits of long-term storage and its foreseen role according to scientific assessments, e.g. via the inclusion of tonne-year crediting.
- The Info Note's Framing of CDR as either "engineering-based activities" or "land-based activities" is arbitrary and not science-based.
- The Info note's argument that 'engineered' CDR solutions are inconsistent with sustainable development goals for the Global South is arbitrary and does not reflect emerging economic and environmental opportunities presented by emerging and already commercial CDR pathways and solutions.
- **Additionality:** There is a concern that the guidance does not provide clear criteria for determining the additionality of wetland restoration or conservation activities. Additionality is a key concept in the mechanism, as it ensures that the mitigation outcomes are additional to what would have happened in the absence of the mechanism.
- **Permanence:** Wetland restoration or conservation activities may not be permanent for millions of years, or 100 thousands but rather - 10 thousands in soil carbon, thousands in belowground biomass and 100s of year in the above ground biomass; as wetlands can be subject to natural disturbances such as floods or droughts. There is a need for clear guidance on how to account for non-permanence, distinguishing between the different types of removal created and ensuring that the mitigation outcomes are not overestimated.
- **Leakage:** There is a concern that the guidance does not adequately address the potential for leakage, which occurs when emissions are displaced from one area to another. Wetland restoration or conservation activities may lead to emissions being displaced to other areas, which could undermine the environmental integrity of the mechanism, specifically when agricultural land is being transferred to function as wetland. However, focusing on leakage only does not allow creating new types of agriculture and products that could be replaceable for the current agriculture yield. A midelway should be constructed.
- **Co-benefits:** Wetland restoration or conservation activities can provide a range of co-benefits, such as biodiversity conservation and water quality improvement. However, there is a need for clear guidance on how to account for these co-benefits and ensure that they are not double counted on one side, but also to do take those impacts into account.
- **Monitoring, reporting and verification (MRV):** There is a need for clear and transparent MRV arrangements to ensure that the mitigation outcomes are accurately accounted for and verified. This is particularly important for wetland restoration or conservation activities, which can be complex and difficult to monitor. Therefore a pathway for improving the current start-of-the-art to new levels with sufficient academy support should be proposed.
- **Environmental integrity:** there are concerns that the guidance does not adequately address the environmental integrity of the mechanism, particularly with regard to the accounting of ITMOs.
- **Lack of clarity:** there are concerns for lack of clarity in the guidance on several issues, including the treatment of non-permanence and the use of ITMOs to meet NDCs.

- **Equity:** there are concerns about the potential for the mechanism to exacerbate existing inequalities between developed and developing countries, particularly with regard to the distribution of benefits and costs.
- **Governance:** There is a need for clear and transparent governance
- **Overall,** wetlands are important ecosystems that provide a wide range of benefits to both humans and the environment. While their potential use as a mitigation strategy under the Article 6.4 mechanism is somehow mentioned, it is imperative to recognize and protect their many other values and benefits as one of the most immediate scalable solution available to humanity. Main benefits of wetlands:
 - **Biodiversity conservation:** Wetlands are among the most biologically diverse ecosystems on the planet, providing habitat for a wide range of plant and animal species. They are particularly important for migratory birds and fish, which rely on wetlands for breeding and feeding.
 - **Water quality improvement:** Wetlands can act as natural filters, removing pollutants and excess nutrients from water. They can also help to reduce the risk of flooding and erosion by absorbing and storing water during heavy rainfall.
 - **Climate adaptation:** Wetlands can help to mitigate the impacts of climate change by providing natural buffers against extreme weather events such as floods and droughts. They can also help to maintain water supplies during periods of drought, which is becoming increasingly important in many parts of the world.
 - **Cultural and recreational values:** Wetlands have significant cultural and recreational values, providing opportunities for activities such as birdwatching, fishing, and boating. They are also important for indigenous peoples, who have traditional knowledge and practices associated with wetland ecosystems.
 - **Economic benefits:** Wetlands provide a range of economic benefits, including fisheries, timber, and non-timber forest products. They also provide important ecosystem services such as carbon sequestration, which can be monetized through carbon markets.

Conclusion: summarizing our objection to one sentence we would like to focus on not measuring removals by durability and tonnage only, this is a tunnel vision that results from the engineering way western world is thinking, this is the reason for the crises we are in, an holistic approach is needed where multiple aspects of nature and society are taken into account, and also short immediate durability should have place and reward since this is what we need in the short term (even 50 years durability have value today, in 50 years it should be changed). We trust that our response can be of use to the Supervisory Body as it moves forward with its work.

Sincerely,

Yuval Lavi, CEO