Removal activities under the Article 6.4 mechanism
Mati Carbon Removals response to information note

Dear Supervisory Board:

Mati Carbon Removals 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.

Mati Carbon Removals is a project of the Swaniti Initiative, a US 501-C3 non-profit organization. We are working to expand a carbon removal program focused on sustenance farmers who typically farm 0.5 to 5 acres of farmland in countries such as India of the Global South. The majority of the farmers we engage depend solely on rain as a water source as they have no means for irrigation. Moreover, many of these farmers cannot afford to fertilize their soils. Therefore, crop productivity for such marginal farmers in regions like Northern Chhattisgarh of India, where we currently operate, are among the lowest in the world. Meanwhile, these regions remain constantly vulnerable to vagaries of rain, or worse yet, drought. We provide silicate rock powders that are useful as farm supplements for field health on such small, vulnerable farms. Minerals abundant in silicate rocks have been shown to improve crop productivity and reduce pestilence in agronomic settings (citation).

Silicate rock crop amendments provide micro-nutrients that improve soil health, thereby allowing for higher crop yields. In low crop-yield settings, the marginal benefit of applying silicate crop amendments can be considerable. The silicate crop amendments that we provide to farmers pass a comprehensive compositional testing protocol. In this way, we are able to quantify the potential agronomic benefit of the amendment and monitor potential contaminants for safety prior to application at farms. In addition to agronomic benefits, the silicates we provide chemically break down very quickly and undergo a process called "silicate rock weathering." Silicate rock weathering is known to draw CO2 down from the atmosphere and sequester carbon for tens of thousands of years. When silicate rock weathering is engineered and deployed with the goal of carbon drawdown, it is often referred to as "Enhanced Rock Weathering," or ERW for short. We fund our operations through carbon removal economics and deploy crop amendments to partnered farmers at no cost. This incentivizes the farmers to participate in–and benefit from–the burgeoning climate-tech economy.

At Mati, we have taken onerous steps to ensure the Monitoring Reporting and Verification (MRV) of CO2 removal is robust so that ERW can be measured and quantified on a scientific basis. We have successfully demonstrated our methodologies in the field at scale, laboratory and through modeling exercises. We collaborate with the Yale Center for Natural Carbon Capture (YCNCC) to provide third party independent oversight over our MRV process. This partnership allows us to employ state-of-the-art techniques and expertise to accurately measure the effectiveness of ERW and its contribution to carbon dioxide removal from the atmosphere. We are continuing the

development of MRV methodology with our colleagues at YCNCC (See the following study). We are committed to advancing this promising carbon dioxide removal strategy in a manner that is environmentally sound, socially responsible, and scientifically rigorous.

We have already deployed our enhanced rock weathering program with about 400 farmers in the region. We have plans to expand our program to include more than 4,000 farmers by 2024. We seek to aid in climate justice for the Global South by transferring value from large buyers of carbon removal credits, such as multinational corporations to climate-vulnerable subsistence farmers. We believe that Mati is a model example of how sustainable development can be achieved with enhanced rock weathering. With the right policies and support, we believe that the Mati non-profit business model can be utilized to remove carbon at the gigaton scale in the coming decade. Additionally, our model can potentially benefit over 100 million farmers across the Global South. The Mati model will help provide both food and economic security to a region that is particularly vulnerable to the coming climate challenges.

We urge the UN to adopt a definition of removals that is method-neutral, and criteria based to preserve latitude for emerging and maturing methods of removal. We also encourage the Supervisory Body to move away from labels such as “nature based” and “engineering based,” which can be counterproductive to acting on removal due to edge cases where one method could be construed as one or the other. We urge UN to reconsider the TRL levels of the various methods as several evolving methods like enhanced weathering have made great strides in the last 12-24 months and ready for large-scale adoption.

Lastly, the Info note’s argument that ‘engineered’ CDR solutions including ERW, is inconsistent with sustainable development goals for the Global South is arbitrary and does not reflect our reality. Mati Carbon Removals deployment of ERW in India are already making a real difference in the lives of climate vulnerable marginal farmers in the global south very much in alignment of the sustainable development goals.

We trust that our response can be of use to the Supervisory Body as it moves forward with its work.

Sincerely,

Shantanu Agarwal
Founder,
Mati Carbon Removals
https://mati.earth/