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Removal activities under the Article 6.4 mechanism

Takachar's response to the Information Note

Dear Supervisory Board:

Takachar Limited 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](#).

Takachar is focused on dramatically increasing the amount of crop and forest residues economically converted into higher-value, carbon-based bioproducts in remote areas. Currently, many rural, underserved communities are shut out from the benefits of the growing bioeconomy, because their crop and forest residues (biomass) are often too loose, wet, and bulky to be economically transported and harvested in a centralized facility. Takachar develops small-scale, low-cost, portable systems that can latch onto the back of tractors and pick-up trucks (see picture above) to deploy to rural, hard-to-access regions to locally upgrade the residues (without needing any external energy source/input) into high-value, carbon-based bioproducts such as biochar-based fertilizers, chemicals, and biofuels. This promotes self-sufficient rural communities dependent less upon expensive, imported, and carbon-intensive alternatives for their commodities, promotes livelihood in the most economically depressed regions, and advances climate justice by enabling these communities access to the carbon market for the first time in recognition of their net-negative practices. We have been winners of Prince Williams' inaugural Earthshot Prize, Elon Musk's XPRIZE Carbon Removal, and Bill Gates' Breakthrough Energy Fellowship. Our work durably removes carbon from the atmosphere by intercepting the carbon absorbed by the growing plants. Instead of releasing the plant carbon back into the air through open-air burning or anaerobic decomposition, our process renders a large portion of the plant-based carbon into a recalcitrant form that stays inert (e.g. in the soil) for at least hundreds to thousands of years, thereby



achieving carbon persistence in that timescale. Currently we work with more than 10,000 farmers in Kenya and India, who on average see a yield improvement of 27%.

We express concerns and objections to the Supervisory Information Note: Removal activities under the Article 6.4 mechanism. We believe that the Note does real disservice to the rural, underserved communities, such as marginalized, smallholder farmers in India and Kenya with whom we work, by unintentionally excluding them from participating in a robust carbon market, thereby perpetuating climate injustice. Firstly, the 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, such as via the inclusion of tonne-year crediting. Secondly, the Note's framing of CDR as either "engineering-based activities" or "land-based activities" is arbitrary and not science-based. Finally, the 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. Any of the 10,000 smallholder farmers with whom we work can testify to the lasting benefits our CDR project has had on them and their families; in many cases, these farmers have succeeded in lifting themselves out of poverty. For example, some of the subsistence women farmers grew to become financially independent of their husbands, selling the excess harvest in order to finance their children's education. Other underemployed youths found lasting job opportunities in our village-based implementation, rather than flocking to urban slums to find meager work and remit the money back to their ancestral villages. As a result, these youths were able to stay with their family in their villages, thereby increasing social and family cohesion amongst the most marginalized communities. Takachar's work on processing crop and forest residues creates doorstep livelihood opportunities in underserved rural communities, prevents air pollution from the open burning of crop residues, sequesters carbon in the soil, and improves soil health, thereby showing multidimensional benefits. When our equipment is deployed in a village, in a decentralized fashion, it creates a whole ecosystem of value creation, and prevents catastrophic air pollution and forest fires in and around the village. Our solution contributes to UN SDGs 1 (No Poverty), 13 (Climate Action), 8 (Decent Work and Economic Growth), and 12 (Responsible Consumption and Production). Therefore, our work carries overwhelming social and economic benefits to marginalized communities in developing countries while concurrently being a CDR pathway.

Thank you for reading this letter. We trust that our response can be of use to the Supervisory Body as it moves forward with its work.

Sincerely,



Vidyut Mohan

Chief Executive Officer