



RE: Structured Public Consultation - Removal Activities  
TO: UNFCCC Article 6.4 Supervisory Body  
19 June 2023

Dear Madam / Sir:

I am writing on behalf of the International Biochar Initiative (IBI) Board of Directors, of which I am the Executive Director. IBI is a global platform for fostering stakeholder collaboration, good industry practices, and environmental and ethical standards to support biochar systems that are safe and economically viable. With over 600 members based in 63 countries, IBI members include carbon markets, biochar producers, biochar users, technology innovators, researchers, and other non-profit organizations.

Biochar was recognized in 2018 by the IPCC as a promising negative emission technology, a term we now more commonly refer to as “carbon dioxide removal (CDR) technology.” Biochar carbon removal (BCR) is widely recognized as a cost effective, durable engineered removal technology, and carbon market agrees: In 2022, BCR accounted for approximately 80% of delivered carbon credits ([cdr.fyi](https://www.cdr.fyi)). BCR is able to provide this level of CDR in part because the industry has production technology developed, is relatively affordable compared with other CDR technologies, and is being used at increasing production scales.

Regarding biochar permanence, BCR durability has been well-documented in numerous peer-reviewed studies. A recent study shows that biochar, when produced at temperatures of 500°C or higher, over 80% of the resulting carbon in the biochar persists for 100 years or more in soil (<https://www.nature.com/articles/s41561-021-00852-8>).

BCR also provides powerful added value in the many environmental and social impacts from using biochar. Biochar co-benefits include improved soil health, in particular water absorbency, as well as soil biome improvements, as any soil organic matter. Farmers using biochar may also reduce their input costs from soil amendments and fertilizers, still achieving improved soil health and in some cases crop yield outcomes. Biochar on average has been shown to reduce nitrous oxide emissions from soil by over 50% (<https://www.sciencedirect.com/science/article/abs/pii/S0048969718339330>) and can be used to reduce methane emissions in animal agriculture and rice farming, as well as from landfills. For non-agricultural uses, biochar can be used as carbon negative materials for creating highly durable concrete, asphalt, and other materials that currently have high embodied, scope three, emissions.

On behalf of IBI, I urge the UNFCCC Article 6.4 Supervisory Body to consider BCR as one of the most readily available engineered removal technologies that is already being widely used for CDR, one of the tools needed to meet the Paris Accord and achieve a 1.5°C goal by 2050.

The IBI Board is available to serve as a resource about this topic. We thank you for your consideration.

Sincerely,

Wendy Lu Maxwell-Barton  
Executive Director

[www.biochar-international.org](http://www.biochar-international.org)