

Big win: Improving grasslands

The total number of livestock worldwide is estimated at 17 billion. Around two-thirds - 5 billion hectares - of the world's total agricultural area is used to feed these animals, including 3.4 billion hectares of grazing land. Much of this land has been severely degraded by overgrazing and unsustainable production.

Livestock contribute significantly to climate change, generating 7.1 billion tons of carbon dioxide equivalent annually - about 15% of all human-induced greenhouse gas emissions and half of those from agriculture.

The perennial grass cultivars of Brachiaria are grown on 80 million hectares of land in Brazil alone. If well managed, these grasses provide a triple-climate-win. They sequester significant amounts of soil organic carbon – conservative estimates indicate a 2-3 fold higher annual sequestration rate than other annual cropping systems.

A growing body of research shows that some varieties of Brachiaria exude compounds from roots that inhibit nitrification and reduce N₂O emissions from soils - a phenomenon known as biological nitrification inhibition or BNI.

Brachiaria grasses are also of high-value livestock fodder, boosting ruminant productivity and emitting less methane per unit livestock of milk or methane. A wider adoption of Brachiaria grasses to improve grasslands

has a tremendous potential to mitigate climate change – especially in sub-Saharan Africa.

Call to action:

- Research is needed to investigate ways to produce commercial-quality seed in Africa. Local production in Africa would result in cheaper seeds for farmers, and help kick-start a homegrown industry for commercial Brachiaria seed production, helping spread the benefits more quickly to more farmers in the region.
- Analyze improved tropical forages in other parts of Africa to establish potential benefits and the business case for developing homegrown seed production in Africa.
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