



Primary Greenhouse Gases -

Carbon Dioxide (CO₂) - responsible for most global warming as emissions are large with long duration in atmosphere.

Methane (CH₄) - traps 20 X more heat than CO₂ per molecule but far less abundant or long-lived. Even so, it breaks down to CO₂ and water.

Nitrous Oxide (N₂O) - traps more heat than either CO₂ or CH₄ but far less common than either. Long duration in atmosphere.

Carbon Sequestration -

Long-term Storage of Carbon. More precisely, the separation of CO₂ from the atmosphere. Traditionally used as a soil additive with more modern uses under development.

From Embrapa, a network of Brazil's agricultural research stations:

In Manaus, [Brazil,] the Embrapa staff has planted annual crops in *terra preta* [biochar]-laden soils for forty years and has been unable to exhaust or ruin their fertility or productivity. Some scientists call the potential of *terra preta nova* the equivalent of a "black revolution" in agriculture.