Country situation on estimation of carbon stock change in mineral soils

Country PHILIPPINES

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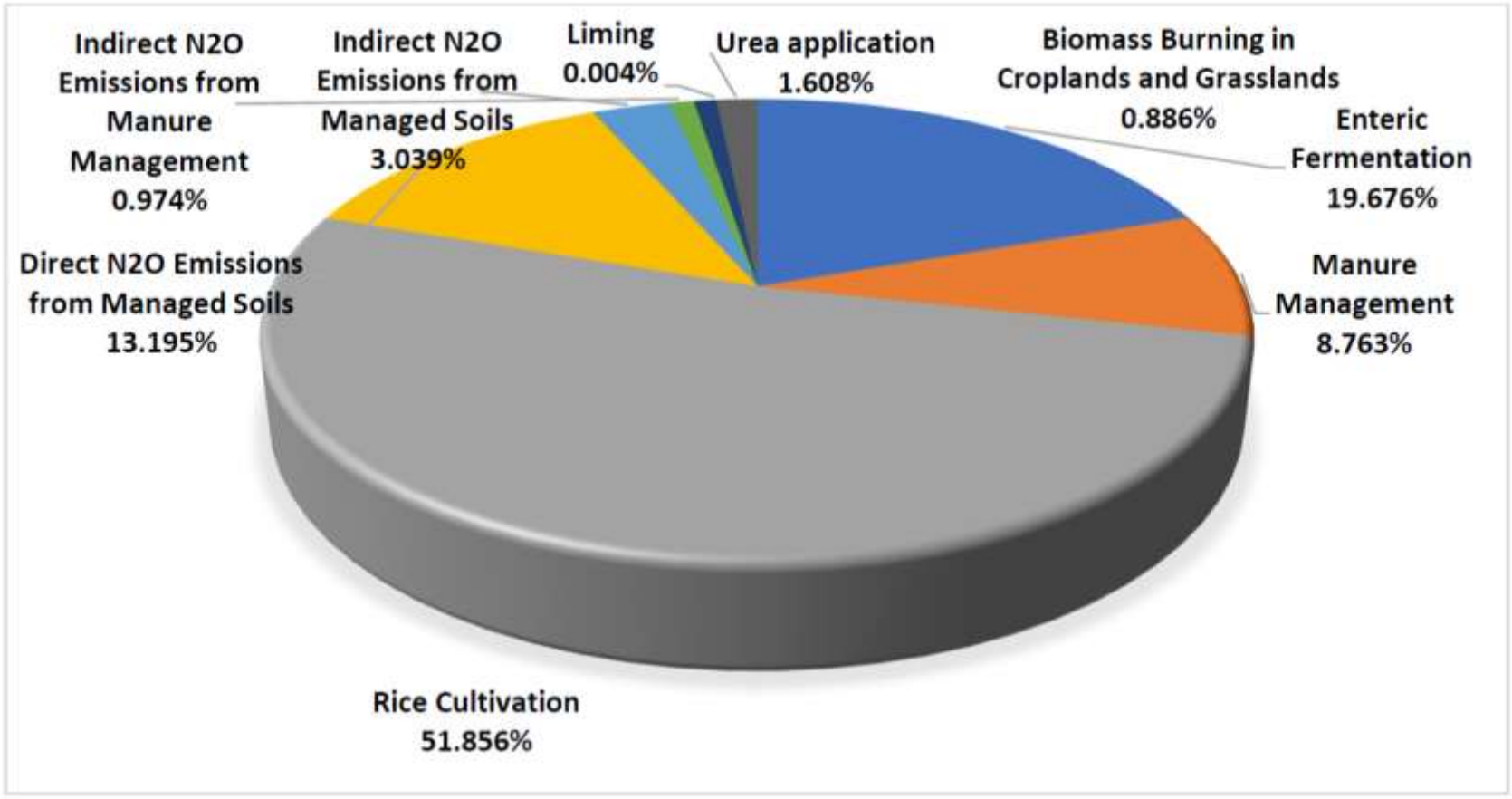
Emission Shares of the Agriculture Sector

In 2010, **43.152 Mt CO_2e** was emitted by the sector, making it the **second-largest emitting sector** in the national inventory.

PHL GHG emissions 0.3% of total global emissions



Emission shares of agriculture subsectors, 2010 national GHGI.

National Organic Carbon Maps

1. **Through FAO-GSP** – Philippine Soil Organic Map 2015 *(Baldwin Pine, 2017)*

2. **Through Pillar 4 of FAO-GSP and AFACI-SOIL Project -** we have recalibrated the SOC of 2015 to SOC map of 2020, and we will be submitting to FAO-GSP this December, 2022 the updated national SOC map *(Andrew Flores, 2020)* and

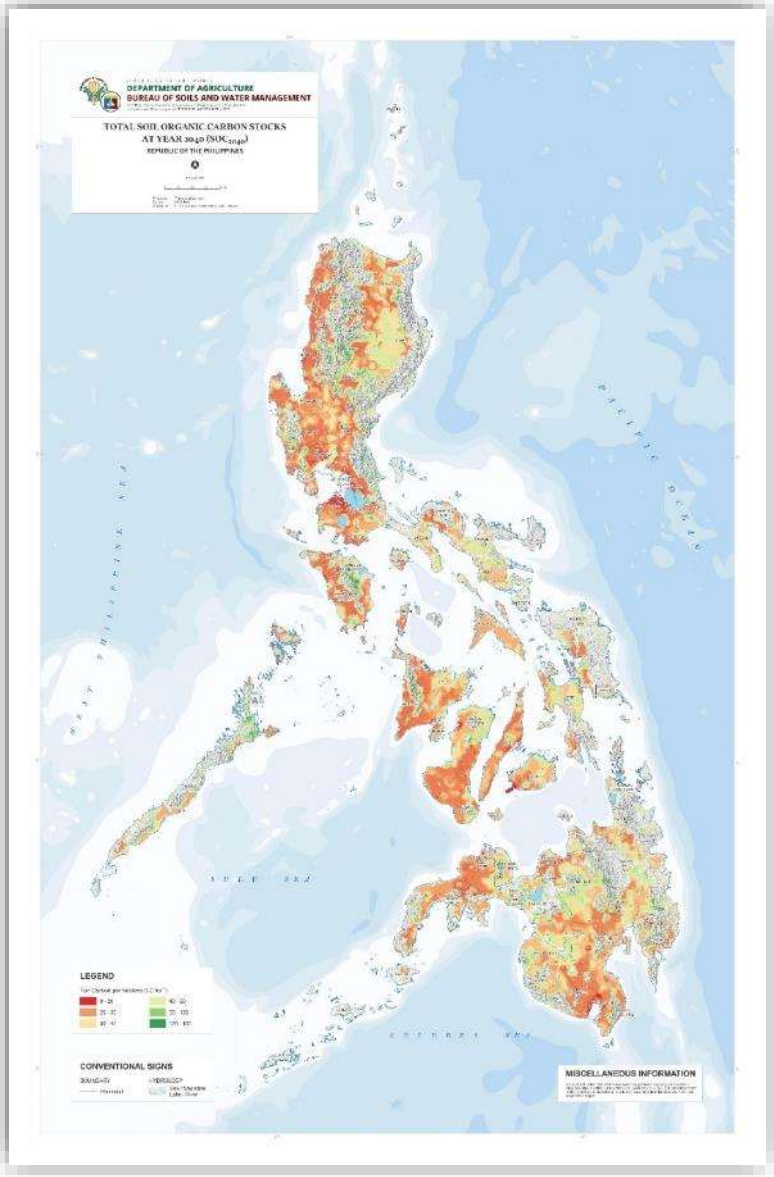
3. Soil Organic Carbon Sequestration Potential (GSOCseq) v1.0, with corresponding GSOCseq Country Report *(Montalla et.al, 2021)* submitted to FAO-GSP

Philippine Soil Organic Carbon Maps

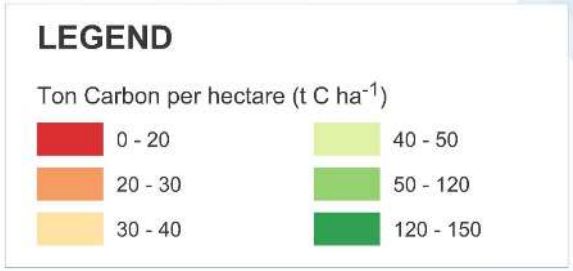
2015

2020

SOC Sequestration Potential(SOCseq) Map



- **SOCseq** is the removal of CO_2 from the atmosphere into the soil carbon pools through plants, plant residues and other organic solids.
- one of the most cost-effective and impactful strategies to mitigate climate change (IPCC, 2019)



- The projected **SOCseq** at year 2040 for the Philippines, with the the adoption of high/intensive sustainable soil management practices, a net positive gain of carbon in the soil will be observed at around 3.7 t C ha^{-1} sequestration rate

1. No climate targets (NDC or other) related to soil organic carbon
2. As per the Department of Agriculture, Philippine agriculture is already a net carbon sink with 3.6 Million hectares of coconut plantations with more than 347 million nut bearing trees plus thousands of young trees. Carbon sequestration by the coconuts is estimated at (**86.76 Mt CO_2e**) twice the carbon emission (**43.152 Mt CO_2e**) from the other agricultural sectors.


Thank you for listening