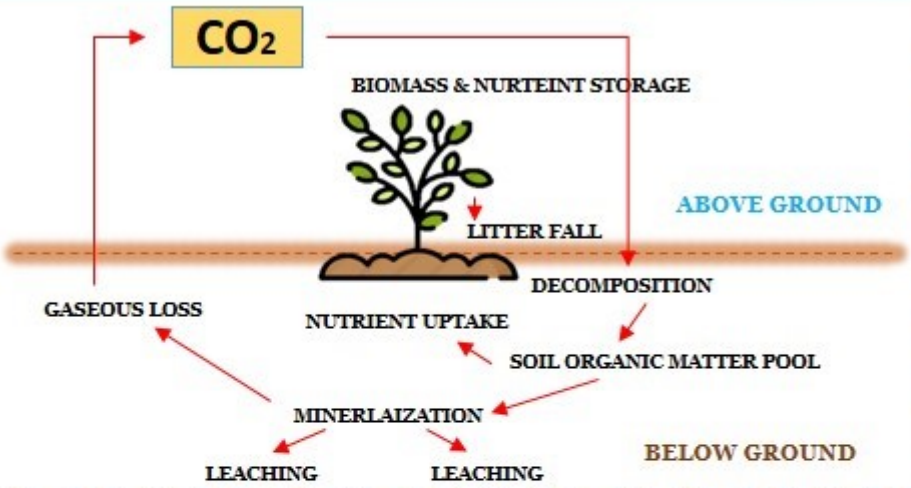
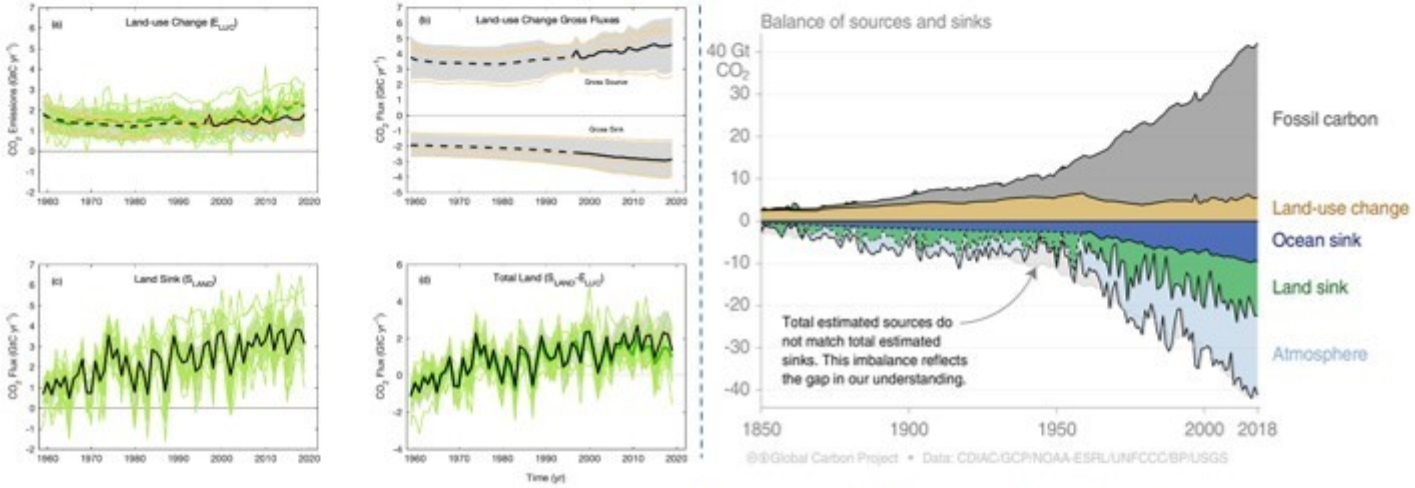
SOIL AND CARBON SEQUESTRATION



Total potential of soil C sequestration in India

39 to 49 (44± 5) Tg C/y

GLOBAL SCENARIO



Soil the largest terrestrial carbon pool estimated at approximately, **2344 Gt** of organic carbon in the first 3 m, **1500 Gt** in the first 1 m and **615 Gt** stored in the top 20 cm of the soil profile.

Soil has carbon pool estimation approximately **1500 Gt** of OC (1 meter of soil profile). This is much higher than the **560 Gt** of carbon (C) found in the biotic pool and twice more than atmospheric CO_2.

Degraded agricultural soil estimated to have potential of sequestering up to **1.2 billion tonnes** of carbon per year.

Sequestration of atmospheric carbon in soil is **24%** of global soil (entire land surface) and **50%** of agricultural soils globally .

Soil as sequent around **20 Pg** C in **25 years**, more than **10 %** of anthropogenic emissions.

INDIAN SCENARIO

Restoration of degraded soils & ecosystems is around **7 to 10 Tg C/y**

Erosion control is around **5 to 7 Tg C/y**

Adoption of RMPs on agricultural soils is around **6 to 7 Tg C/y**

Secondary carbonates is around **22 to 26 Tg C/y**

** Gt- Giga Tonne; Pg –Petagram; Tg – Teragram; OC – Organic Carbon; RMPs – Resource Management Plan; C/y – Carbon per Year*

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