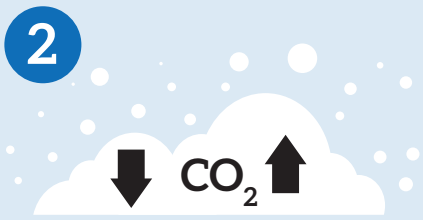
TROPICAL SOILS CAN HELP US MAKE AGRICULTURE CARBON NEUTRAL AND MEET CLIMATE TARGETS

1

With good soil management, our soils can store 5-15% of all CO_2 emissions.

2



That is enough to offset all emissions in agriculture!

3

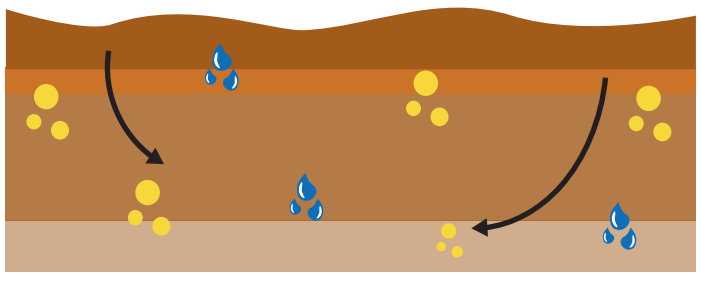
We need to promote the best agricultural methods to store carbon in different kinds of soil.

4

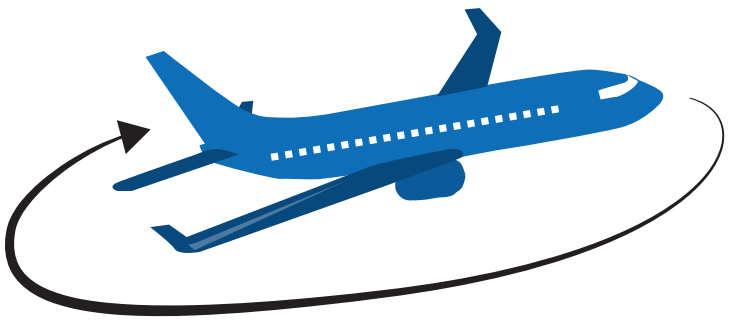
We need more research to find out what practices are best for which areas.

Agriculture contributes to climate change:

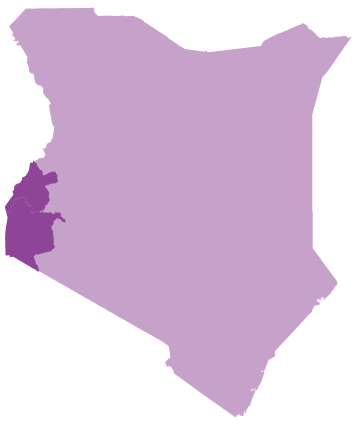
Agriculture is the second biggest contributor to global greenhouse gas emissions after the energy sector, which includes transport and power generation. About 13 percent of global greenhouse gas emissions are from agriculture, excluding deforestation.



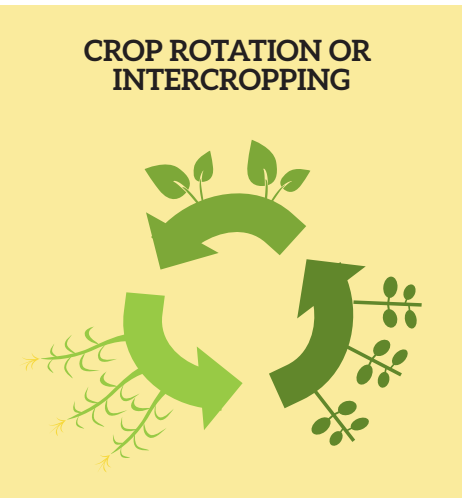
Managing our soils better is key to reducing greenhouse gas emissions from agriculture and adapt to a changing climate. Increasing the amount of organic carbon in the soil improves soil fertility and water infiltration, reduced soil erosion, while helping plants to take up more minerals and nutrients.



How farming practices can help mitigate harmful emissions from agriculture:



In Western Kenya, 50 - 70% of original carbon has been lost from the soil due to traditional farming practices like tilling the land in the last 30 - 100 years. Geography, climate and what is planted on the land play a crucial role in how much carbon soils can absorb or lose.



Conservation Agriculture (CA): not disturbing the soil; using maize stalks to protect the soil surface after harvest; or Integrated Soil Fertility Management (ISFM) - like improved seeds and combining organic and inorganic fertilizer - can slow this trend. Using these practices, organic carbon levels stabilized in Western Kenya after 15-20 years.

Each year, depending on how much organic matter is recycled back into the soil, a farmer with one hectare of land can offset emissions equal to 0.25 and 0.7 tons of carbon – around the amount of carbon emitted by one return flight from Nairobi to New York.

Sources: World Resources Institute, Carbon Neutral Calculator

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BMZ Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung