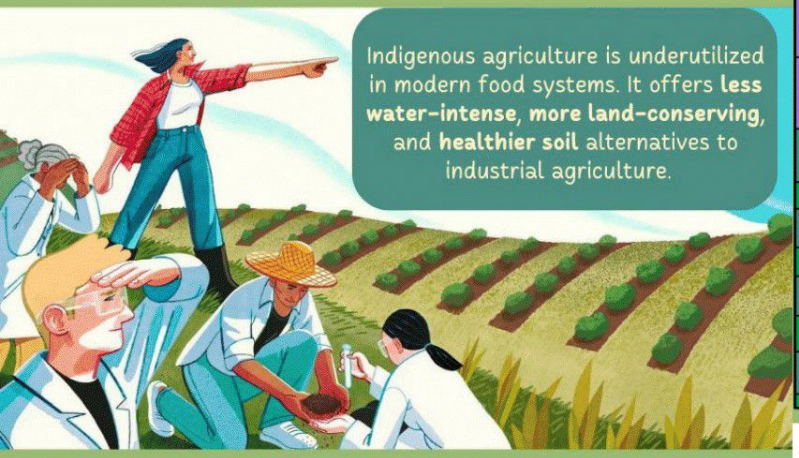
IMPLEMENTING INDIGENOUS AGRICULTURE INTO MODERN FOOD SYSTEMS



Indigenous agriculture is underutilized in modern food systems. It offers **less water-intense, more land-conserving,** and **healthier soil** alternatives to industrial agriculture.

Large-scale industrial farming practices like **monocropping** and use of **chemical fertilizers** and **GMOs** contribute to problems like **soil depletion, erosion, water pollution, biodiversity/habitat loss,** and **increased CO2 emissions**. These practices are unsustainable long-term, which is a problem because **we need food!**

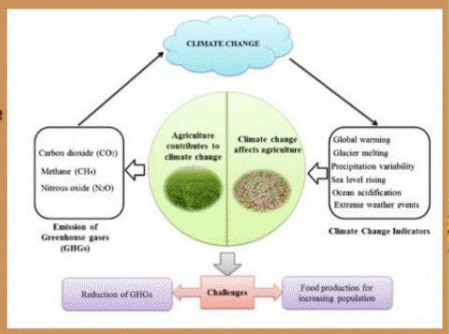
Why you should care:

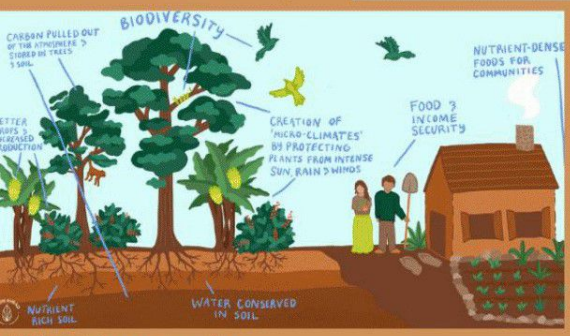
Healthy soil,we run out of **food**. And we should be conserving freshwater, as it's a finite resource

Implementing indigenous agriculture practices can lead to:

- **Increased global food security**
- **Reduced** water use on farms
- Improved carbon sequestration, **reducing CO2 in the atmosphere and slowing climate change!**

The problem will only self-perpetuate, as more **unsustainable** industrial agricultural practices continue to be used as **short-term** solutions to food scarcity.



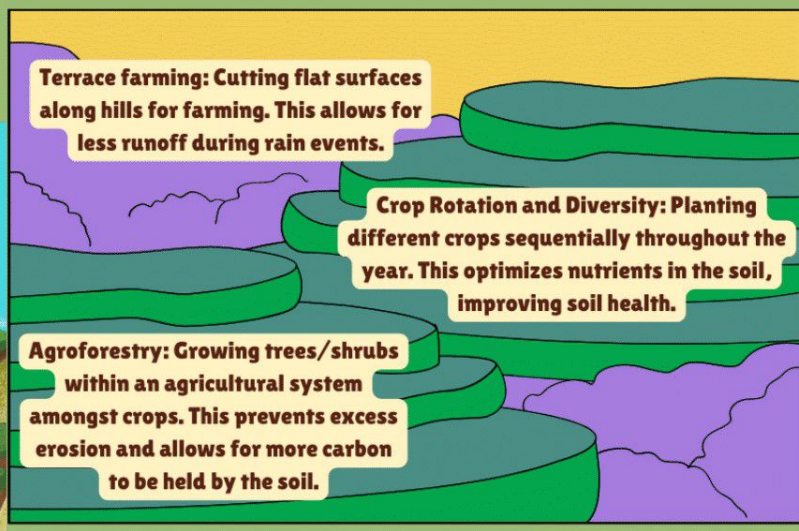


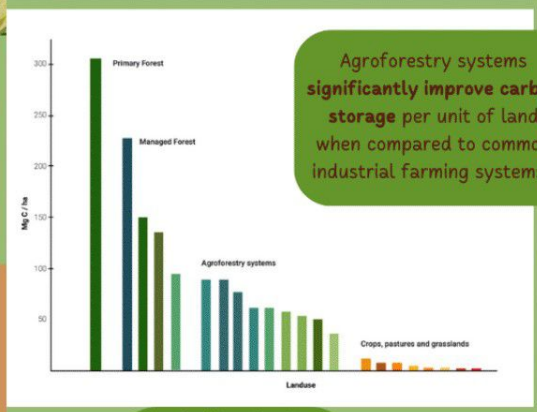
By measuring **carbon emissions, soil health, land use,** and **water use,** we can see how effective indigenous agricultural practices are.

What you can do:

- **Buy foods locally** if you have the means to do so
- **Purchase from farms** that use indigenous practices
- **Volunteer at farms** that use indigenous practices
- **Vote** for legislation that supports the implementation of indigenous agriculture industrially

What different practices are there?





Agroforestry systems **significantly improve carbon storage** per unit of land when compared to common industrial farming systems!

Using fertilizers is a **short-term** solution for improving crop yield, while crop rotation allows for **high yields** for **longer stretches of time.**

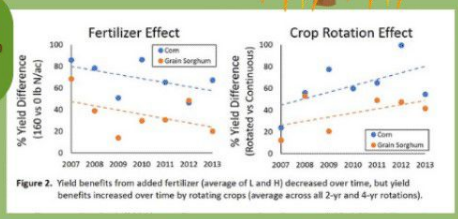
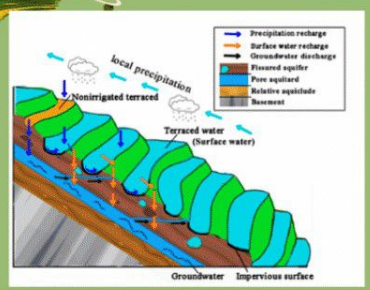


Figure 2. Yield benefits from added fertilizer (average of L and H) decreased over time, but yield benefits increased over time by rotating crops (average across all 2-yr and 4-yr rotations).



Utilizing terrace farming on hills and mountains allows for **food to be grown in a way that won't cause excess runoff** and will instead allow groundwater to be collected.

Aspects of Sustainability

Socio-economic
Promotes environmental justice for local and indigenous farmers and farming practices

Socio-environmental
Chemical runoff from fertilizers can leach into waterways, causing negative health impacts

Economic-environmental
Places a higher value on sustainably sourced food, consumers willing to pay higher prices and support farmers

Sources

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