

## Carbon - The Crop of the Future

### Why in news?

Carbon farming promises a new agricultural business model — one that fights climate change and creates jobs.

### What are the issues with the modern industrial agriculture?

- Agriculture is now a surgical economic activity that leads to the new epoch of corporate-environmental food monopolies with various issues including,
  - Less food out of the ground
  - Fewer nutrients
  - Less efficient
  - More expensive
  - Greater environmental devastation
- It has also kept a colonialist imprint on the planet with
  - Differentiated access to nutritious food
  - Reducing the biodiversity of our diet
  - Injudicious ecological practices like monocropping and systematic erosion of soil
  - Mounting cost of technology, chemicals exiling the farmers out of their fair share of the progress
  - Deepening the climate change crisis

*According to the 3rd biennial update report submitted by the Union government in 2021 to the UNFCCC, the agriculture sector contributes 14% of the total GHG emissions.*

### What can fix the broken food systems of our times?

- Carbon farming promises a bold new agricultural business model in order to fight climate change, create jobs and save farms.
- Carbon farming is a whole farm approach to optimize carbon capture on working landscapes by practices that improve the rate at which CO<sub>2</sub> is removed from the atmosphere and stored in plant material and/or soil organic matter.
- The total value of the global carbon markets grew by 20% in 2020.
- April 2022 has been the biggest year in carbon capture investment with big tech companies like Stripe, Alphabet, Meta and Shopify announcing millions of dollar of carbon removal offsets.

### What are the benefits of carbon farming?

- **Profit for farmers-** Carbon farming can help the farmers shift their focus from improving yields to functioning ecosystems and sequestering carbon that can be sold or traded in carbon

markets.

- It provides with boosted/secondary income from carbon credits for the marginalised farmers.
- **Soil health**- It not only improves the health of soil but can also result in improved quality, organic and chemical-free food (farm-to-fork models)
- **Decarbonisation**-- Soil acts as an efficient carbon sink and can be capitalised to achieve the Net Zero target and decarbonising pathway.
- An initiative called “4 per 1000”, launched at the 2015 Paris climate conference, showed that increasing soil carbon worldwide by 0.4% yearly could offset that year’s new growth in CO2 emissions from fossil fuel emissions.

*Studies show that soil removes about 25% of the world’s fossil-fuel emissions each year.*

## **What is the case of Meghalaya regarding carbon farming?**

- In India, Meghalaya is currently working on a blueprint of a ‘carbon farming’ Act to create a prototype of sustainable agriculture model for the entire North-East region.
- Out of the 5.5 million hectares of cultivated land available in the North-East, organic farming barely covers 3% of arable land highlighting the tremendous potential.
- A pioneering Carbon Farming Act with a robust transition plan can effectively demonstrate the idea of creating a carbon sink.
- It can improve nutrition, reduce the inequalities within farming communities, alter the land use pattern and provide the much-needed solution to fix our broken food systems.

### **References**

1. <https://www.thehindubusinessline.com/opinion/why-carbon-is-the-crop-of-the-future/article65431204.ece>

