

Regenerative Agriculture

For Prelims: Regenerative Agriculture, IPCC, Agroecosystem, Soil Degradation.

For Mains: Regenerative Agriculture and its Significance.

Why in News?

The importance of regenerative agriculture was emphasised in the <u>Intergovernmental Panel on Climate Change (IPCC)</u> report on "Climate Change and Land."

It is a 'sustainable land management practice' that can be effective in building the resilience of agroecosystems.

What is Regenerative Agriculture?

- Regenerative agriculture is a holistic <u>farming system</u> that <u>focuses</u> on soil health, food quality, biodiversity improvement, water quality and air quality through methods such as <u>reducing</u> the use of chemical fertilisers and pesticides, reducing tillage, integrating livestock and using cover crops.
- It adheres to the following principles:
 - Minimise soil distribution through conservation tillage
 - Diversify crops to replenish nutrients and disrupt pest and disease lifecycles
 - Retain soil cover using cover crops
 - **Integrate livestock,** which adds manure to the soil and serves as a source of carbon sinks.

What is the Need of Regenerative Agriculture?

- The current intensive agriculture system has led to soil degradation and constant losses. There may not be enough soil to feed the world in next 50 years, according to international scientists. Soil fertility and biodiversity are decreasing across the globe.
- Regenerative agriculture improves soil health through practices that increase soil organic matter, biota and biodiversity. It also aims at enhancing water-holding capacity and carbon sequestration.
 - It facilitates soil aggregation, water infiltration, retention and nutrient cycling.
 - Regenerative agriculture also reduces erosion, provides habitat and food for diverse species and is beyond sustainability.

UPSC Civil Services Examination Previous Year Question (PYQ)

- Q. How far is Integrated Farming System (IFS) helpful in sustaining agricultural production? (2019)
- Q. What is Integrated Farming System? How is it helpful to small and marginal farmers in India? (2022)

Source: DTE

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