## Solidaridad



# **Promoting Regenerative Agriculture with regenagri® initiative**

## The global scenario

Global greenhouse gas emissions by sector Our World This is shown for the year 2016 - global greenhouse gas emissions were 49.4 billion tonnes CO<sub>2</sub>eq. Iron and steel

➤Agriculture sector accounted for more than 9 billion tonnes of GHG emissions in 2016.

 $\blacktriangleright$ Additionally, according to FAO, 33% of the fertile soils have already degraded, which could rise to 90% by the year 2050. Major factors for this include overuse of chemical inputs in farming, deforestation, and exploitation of water resource.



OurWorldinData.org - Research and data to make progress against the world's largest problems. Source: Climate Watch, the World Resources Institute (2020)

in Data

### Challenges in Vidarbha, Maharashtra

- The region faces frequent crises due to erratic rainfall patterns and pest infestations
- Traditional resource- intensive farming practices prevail among smallholders
- Excessive water usage has led to water scarcity issues, affecting both farmer and the environment
- Heavy usage of chemical fertilizers and exploitation of water sources further exacerbates GHG emissions



#### Introducing **regenagri**<sup>®</sup>

regenagri® is a regenerative agriculture initiative aimed at securing the health of the land and the wealth of those who live on it. It supports farms and organizations to transition to holistic farming techniques that increase soil organic matter, encourage biodiversity and sequester CO<sub>2</sub>.



Increase soil organic matter

Increase biodiversity Sequester CO<sub>2</sub> Improve watershed management

### The regenagri<sup>®</sup> approach

regenagri provides the solution to support farms and organisations transitioning to holistic farming, increasing soil health, encouraging biodiversity, reducing GHG emissions and sequestering  $CO_2$ .



- Third-party validation of sustainable practices, thereby, building credibility and trust with consumers and partners
- Encourages ongoing learning and adaptation, ensuring continuous improvement for the farms
- Through regenagri certification, farms can track and quantify their positive environmental impact

### **Project Overview**



#### The regenagri<sup>®</sup> certification process



### **Project activities**

	Major activities	
Minimum Tillage	Cover Crop	Crop Rotation & Diversification
Intercropping	Perennial	Usage of
	Cropping	biological inputs
Efficient use of water	Biodiversity Conservation	Afforestation
Livestock Integration	Pollution Prevention	Rainwater Harvesting
Renewable Energy	Conservation of Natural Habitat	Integrated Pest Management
Promotion		U

#### **Project outreach**



#### Shift from soil degradation to improvement in soil health

Intensive tilling, use of chemical fertilizers replaced with minimum tillage, use of compost







- 12,500 farmers supported with Vermicompost units.
- 58,00 plus
  farmers involved
  in composting
  practices
- 28,285 farmers trained on minimum - tillage practices



#### Integrated Pest & Nutrient Management with natural crop protection strategies

Usage of chemical pesticides minimized and cultivation practices enhanced with usage of naturally derived farm yard manure, compost prepared with vermi-cultures, plants such as Neem, and other biologically prepared organic inputs locally called 'Dashparni' and 'Jeevamrut'





- 12 % reduction in the cost of cultivation, from approx. 35,000 to 30,500 observed
- Improvement in plant and soil health. Reduced
   exposure of farm workers to hazardous chemicals

An observed 8% increase in cotton yield

#### Water Management and Conservation



- 2,060 farmers availed financial support for water harvesting and microirrigation systems
- 16,500 farmers adopted water efficient practices
- 6.2 million litres of water use avoided through trash mulching in 5,000 acres of farm land
- 4 million litres of water use avoided through drip irrigation in 2,000 acres of farm land

# sequestration

- 1242 farmers supported with renewable energy equipment
- 28,285 farmers trained on minimum tillage practices
- 1225 bio-digesters provided to the farmers



- Evident reduction in trash burning, with area under trash mulch practice rising to 6,500 acres
- 10,000 trees planted in collaboration with the government
- An estimated 1.4 MT/acre of CO<sub>2</sub> emission reduced



#### Integrating technology for capacity building

- A well-established network of state-of-the-art hardware equipped smart plots to disseminate information on weather, crop pattern, irrigation scheduling, and pest control
- More than 46,000 farmers benefitting from irrigation schedule advisories
- Associated farmers reported a 40% reduction in chemical usage as direct result of timely advisories on weather patterns and pest management





# THANK YOU