



CLEAN AIR AND HEALTHY SOIL

INDIA



Clean Air and Healthy Soil is a unique soil carbon sequestration project to address the severe crop residue burning-air pollution issue in an environmentally sustainable and cost-effective manner. The project integrates Sustainable Agriculture Land Management (SALM) practices as a permanent solution to stubble burning. The project ensures nutrient recycling, carbon sequestration, water conservation, weedicide savings, improved yield, climate resilience of crops, and change in farmer's behaviour, which is the primary reason for burning. The adopted practices also bring significant improvement to farmer livelihood and the entire rural ecosystem.

Background

In India, agriculture nurtures the primary source of livelihood for about 58% of the population, contributing to around 17% of the country's gross domestic product (GDP). Among these, the two states of North India - Punjab & Haryana, the most fertile farming state, known for its extensive irrigation system appropriate for farming and having 93% of the total productive land used to produce food grain. However, the major crops grown in this region are wheat and paddy cultivation, which generates much agricultural waste. The crop residues are burned every year, causing excessive particulate matter emissions and air pollution.

Excessive chemical fertilizer and the high water demand already degraded the land and significantly contributed to carbon emission. Besides that, the region is witnessing air pollution; the burning of crop residue in the farm adds to pollution and negatively impacts the environment. Due to this, the city pollution level tipped the scales heavily towards hazardous air quality index exceeding 400-1000 AQI (Central Pollution Control Board CPCB). Therefore, crop residue burning in the North-Western is a severe threat to Environment & Health, not only to humans but also to other living organisms.

Approach

Since 2018, the Confederation of Indian Industry (CII) has been working with local farmers towards crop residue management. The project activity has a three-year roll-out, which begins in August 2018 and ends in August 2021. The proposed nutrient/biomass management activities (in-situ & ex-situ) in the intervened area includes mulching, composting & improved tillage practices. Clean Air and Healthy Soil practices adopt about 50%-80% of the land area during the first two years and cover the entire space or during the third year.

FairClimateFund & CII are developing a carbon project to support the local farmers. The applicability of SALM Project activity in this project includes activities that increase soil carbon sequestration through improved cropland management and/ reduce GHG emission by increasing soil carbon stocks, reducing soil N₂O emissions and/or reducing CH₄ emissions.

Impact

The implementation of sustainable land management practices offers social, environmental and economic benefits to the local farmers the ecosystem. The crop residue management offers better yield to the local farmers, contributing to agriculture productivity and addressing the bigger challenges like food security.

The reduction of expenses towards the usage of chemical fertilizers also provides economic benefits. In addition, the carbon sequestration by the soil improves its health, increases the organic matter that provides necessary nutrients to the crop, and addresses global warming simultaneously.

Examples of activities are agroforestry/cover crops, which increase the green cover and reduce water consumption. This provides a conducive environment for regenerative agriculture, which in turn leads to sustainable agricultural production. The project also trains farmers to make the ecosystem more resilient to the impact of climate change. With this, we offer future generations a chance for a sustainable income.



64.807

Hect. of agriculture land covered



27.863

Farmers supported



203.361

tCO₂ removed/Sequestered annually



Ambition

The project aims to scale up sustainable agriculture land management. It trains more farmers with in-situ applications like reduced tillage, cover crops, residue management, mulching, composting, green manure, targeted fertilizers, reduced biomass burning and agroforestry, and soil organic carbon enhances. This leads to higher carbon sequestration against the baseline of no action or crop residue burning. Additionally, it avoids emission from residue burning, a prevalent exercise around the area. This also has a significant impact on protecting the topsoil of these areas.

The certification of climate impact under VERRA will help to mobilize the carbon investment for farmers to improve soil health and also provide an opportunity for the private sector to fulfil their NetZero target.

Benefits of the project

Contribution to the SDG's

Climate Resilient Agriculture

- Less consumption of chemical fertilizer
- Less consumption of water requirements
- Improvement in the soil health & Increase Agriculture Productivity



Climate & Environment

- Remove/Sequester CO2 emissions and storage in soil
- Reduced air pollution and improve air quality index



Economic Development

- Reduction of input cost from in-situ application
- Increase livelihood income through better agriculture practices
- Receive carbon incentive for managing the farm land in sustainable way



Do you want more information about this project?

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Pending approval of
Verified Carbon Standard



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION