

Model 2

Clean Food Carbon Neutral (CFCN)- Agri-Net Zero model for Best CSR & ESG compliance with 7 crucial SDG compliance along with multiple social and environmental footprints



Clean Food Carbon Neutral (CFCN) harnesses **IRF Technology**, an organic-farming system proven to yield CO₂-neutral crops with net sequestration of 76 kg C/ha annually . By integrating sustainable practices, and waste conversion through Novcom composting technology, the model transforms fields into carbon sinks capable of sequestering up to 45 MT C/ha/yr . Corporations embed these practices into supply chains, linking carbon mitigation to sustainable sourcing and robust ESG reporting . The environmental footprint extends to **enhanced biodiversity**, as pesticide eliminations cut runoff by over 30 percent and restore critical pollinator habitats . Advanced MRV approaches— including —ensure transparent, real-time soil-carbon monitoring for credible net-zero claims . Socially, CFCN elevates rural livelihoods by offering **value added marketing** and risk-sharing mechanisms that de-risk adoption for smallholders. This yields **resilient, nutrient-dense food systems** aligned with SDG 2, bolstering food security through localized production hubs . It safeguards public health (SDG 3) by eliminating agrochemical exposure, reducing related illnesses in farming communities, and secures water quality (SDG 6) by halving agricultural runoff. A **closed-loop nutrient cycle** (SDG 12) reuses organic byproducts to fertilize fields, minimizing external inputs, and verified GHG removals through rigorous soil-carbon accounting reinforce climate-action compliance (SDG 13) . Finally, the **restoration of degraded lands** (SDG 15) through these regenerative practices revives ecosystems, locking in biodiversity gains and long-term resilience .

Clean Food Carbon Neutral’s nature-harnessed framework unites carbon mitigation with sustainable development across social and environmental dimensions, delivering robust benefits—from enhanced biodiversity to strengthened rural livelihoods. By integrating IRF-driven regenerative practices into corporate supply chains with transparent MRV systems, CFCN empowers businesses to meet rigorous CSR and ESG standards while ensuring credible net-zero claims. As companies adopt this nature-based blueprint at scale, the CFCN framework stands poised to transform global food

systems, offering a replicable pathway toward inclusive climate resilience and sustainable prosperity.

Highlights of Clean Food Carbon Neutral (CFCN) Model

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1. **Crop Productivity Upliftment** : Adoption of soil-and-plant health management under IRF Technology helps develop efficient soil–plant–nutrient relationships, raising crop yields by 5–15% across diverse agro-ecological conditions.
2. **Soil Health Improvement** : Effective recycling of farm resources through Novcom composting technology and other sustainable practices can enhance soil organic carbon by 0.2–0.5 t CO₂e/ha/year, while reducing erosion and soil-borne disease pressure.
3. **Pest and Disease Reduction** : Healthier soils and improved plant immunity through dedicated plant health management disrupt pest life cycles, lowering disease incidence and enabling the complete elimination of synthetic pesticides.
4. **Safe Food for Consumers** : By minimizing chemical pesticide and synthetic-fertilizer use, residue levels in produce can drop by up to 100%, ensuring full compliance with international food-safety standards.
5. **Shared Sustainability for Farmers and Consumers** : Enhanced productivity plus direct farm-to-consumer linkages deliver both economic resilience for growers and access to affordable, sustainably produced food for consumers.
6. **Clean Water & Safe Environment** : Reduced application of nitrogen fertilizers and toxic pesticides protects waterways and promotes a healthier ecosystem.
7. **GHG Savings** : Program-wide adoption of carbon-neutral practices can save 2–4 t CO₂e/ha annually, contributing meaningfully to national emissions-reduction commitments.
8. **Farmers' Livelihood Development** : Access to training, advanced agro-technologies, and market linkages builds farmer resilience and entrepreneurship, reducing livelihood shocks from extreme weather.
9. **Attainment of SDG Goals** : Through its safe and sustainable development approach, CFCN directly advances SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 13 (Climate Action), and SDG 15 (Life on Land).
10. **Rural Employment Generation** : Establishing local composting facilities, nurseries, and market-support services can increase rural employment by 5–10%, stimulating local economies.

By delivering these outcomes, a Clean Food Carbon Neutral program not only advances multiple SDGs but also builds a resilient, inclusive, and climate-smart food system—an ideal model for agriculture-focused CSR.
