



SPS Biota

ECOSYSTEM
SERVICES

Climate Smart Agriculture



Overview

Farmers are essential in all societies for producing food, fibre, and helping to achieve Sustainable Development Goals (SDGs). Despite this vital role, farming systems are coming under increasing stress from a range of negative influences, including climate change, an ageing workforce and competition for land use.

SPS Biota supports the Three Pillars and Five Actions of Climate Smart Agriculture (CSA) (Food and Agriculture Organisation), by providing pathways for achieving successful outcomes that balance environmental protection, food security and economic development.

Five Actions

- Expanding the evidence base for CSA
- Supporting enabling policies
- Strengthening institutions
- Enhancing funding and financing
- Implementing CSA practices at field level



Our Key Objectives for implementing Climate Smart Agriculture projects in the field:

- Economic: Increased agricultural production, improved farm incomes and fair market access
- Resilience and recovery related to adverse climatic events
- Improved market access and market development
- Addressing cross-cutting social issues and gender mainstreaming
- Implement REDD and REDD+ guidelines for projects associated with forest and agro-forest landscapes
- Protection of ecosystems and biodiversity
- Reduction of greenhouse gas emissions across the value chain and carbon sequestration
- Traceability of commodities and certifications to a farm level

<u>Regenerative Agroforestry</u>	
Protection of Primary Forest & Biodiversity	
Regeneration of Shade Trees	
Home Food & Cash Crops	

Regenerative Agroforestry

SPS Biota - Regenerative Agroforestry uses trees and forests to absorb atmospheric carbon, prevent soil carbon loss and restore forest landscapes.

Practical base-line assessments under Pillar One and resilience initiatives delivered under Pillar Two also target emission reduction or elimination of other greenhouse gases, where possible.

Protection and regeneration of primary forest, planting of shade trees and a selection of cash and food crops, underpin the SPS Biota CSA approach

Three Pillars of Climate Smart Agriculture

Pillar 1 - Productivity

Gathering baseline information from a project area and focusing on productivity and cross-cutting issues is just the beginning of the SPS Biota CSA approach. An assessment on what is working well and what can be improved is an important first step to build in climate smart farming methods and resilience.

Pillar 2 - Adaptation

Successful implementation of economic, social and environmental elements leading to measurable improvements across selected indicators. Pillar Two workflows focus on building resilience to both economic and environmental influences.

Pillar 3 - Mitigation

Agroforestry, reducing greenhouse gas emissions and carbon sequestration require specialist skills. SPS Biota forestry expertise can implement regenerative agroforestry, understand mechanisms available to sequester carbon and objectively assess if monetarisation of ecosystem services is appropriate.

Measuring Carbon

Forests and trees play a vital role in absorbing and storing atmospheric carbon and preventing soil carbon loss. But as forests and woodlands can be both a potential carbon source as well as a carbon sink, management of forest ecosystems and changes in forest cover associated with farming is an important part of helping to combat climate change. Accounting for any changes in carbon stocks that arise naturally or resulting from human activity, is a key step in delivering good CSA outcomes.

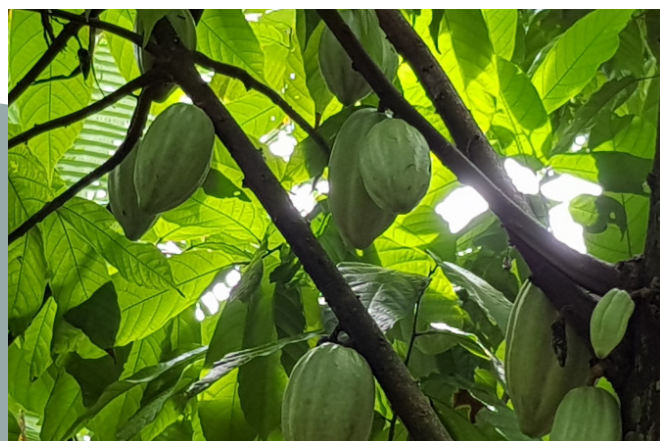
Forest carbon accounting:

All the elements of the SPS Biota CSA approach are consistent with the requirements for any potential carbon market financing and payments. However, monetarisation of carbon sequestration (carbon farming) and other ecosystem services will only be considered if:

- CSA principles and goals are supported
- Any payments are fair and equitable
- Carbon market arrangements don't disadvantage farmers or communities
- Food security is not compromised



Cacao & Tree Nursery, Philippines



Cacao pods, Vanuatu

Alignment to current climate thinking



COP26

Our CSA Regenerative Agroforestry methods are consistent with and support the climate goals of the COP26 Declaration on Forests and Land use: “.. to halt and reverse forest loss and land degradation by 2030 while delivering sustainable development and promoting an inclusive rural transformation”.



REDD+

Principles and mechanisms that support Reducing Emissions from Deforestation and Forest Degradation (REDD+) developed by the United Nations Framework Convention on Climate Change (UNFCCC) are adopted.

In addition to the conservation and biodiversity gains achieved, a financial or off-set value can be attributed to the carbon stored in forests and these are conducive to receiving incentives at a national or local level for developing countries. But will only be considered if payments are equitable and do not threaten food security.



Protected Natural Forest Monitoring, Chatham Islands South



spsbiota.co.nz

0800 246 821