



Felicité, a farmer who grows vanilla, living in Ifanadiana (Vatovavy Region). Photo by Heidi Yanulis Photography for CRS Madagascar

SPICES : Securing and Protecting Investments & Capacities for Environmental Sustainability in Madagascar

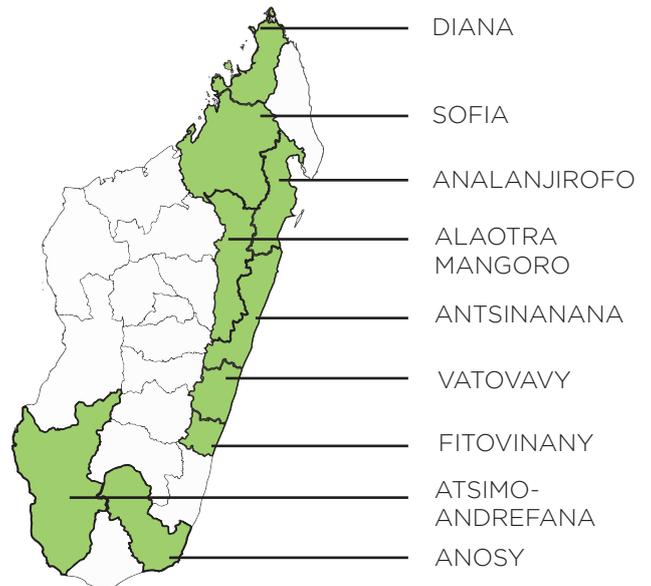
ABOUT MADAGASCAR

Madagascar, the fourth largest island in the world is the size of Texas and is situated 250 miles off the east coast of Africa. With 92% of its people living on less than \$2 a day, it remains one of the poorest countries in the world and nearly half (47%) of all Malagasy children are chronically malnourished. It is also one of the countries in the world the most at risk to the effects of climate change leading to an increase and severity of cyclones and droughts.

Madagascar is extraordinarily rich in natural resources and biodiversity. It is home to 5% of the world's plant and animal species, 80% of which are endemic to the country. Madagascar's forests provide society with a wide range of essential products including timber, fuel, food, medicine, and raw materials. Unfortunately, Madagascar is also noted for its high degree of environmental degradation. Poverty, slash and burn agriculture, high population growth and weak governance have resulted in continued deforestation, land degradation and habitat loss.

Despite these challenges, there is still a wealth of opportunities. Madagascar is the largest producer of vanilla in the world and Malagasy farmers also produce some of the highest quality cloves, cinnamon, pepper and cacao globally. By building off sustainable land management practices to grow spices and other products and the high market demand, the Securing and Protecting Investments & Capacities for Environmental Sustainability (SPICES) program was launched as a people centered approach to address social, health, economic and environmental challenges for rural farmers and communities in Madagascar.

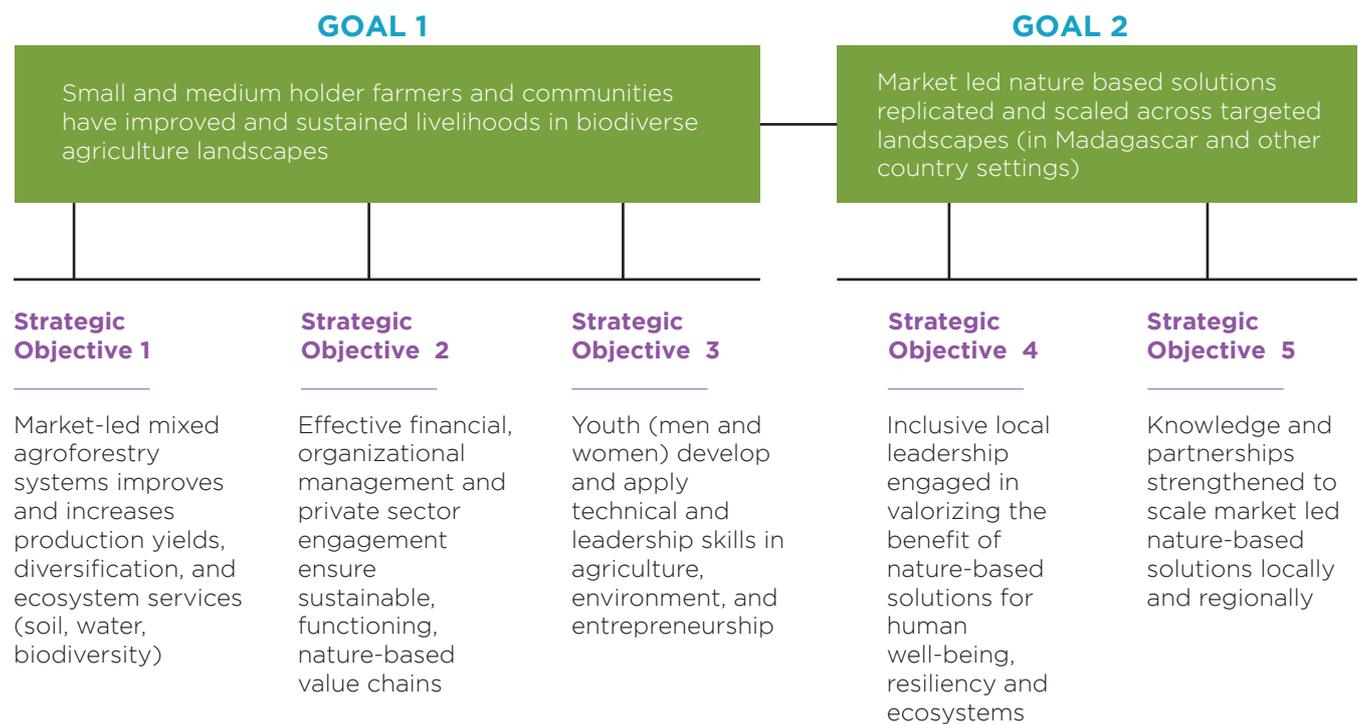
INTERVENTION AREAS



Based out of the Vatovavy, Atsinanana, Atsimo-Andrefana, Anosy, Alaotra Mangoro and Diana, Sofia and Analanjirofo regions, and expanding, CRS works closely with local partners to implement the SPICES program to address threats to the well being of communities and the environment head on with a market- oriented approach centered around establishing nature based value chains that capitalize on the demands for Madagascar's spices and other products while simultaneously incentivizing a type of natural resource management system which promotes agricultural practices that protect endemic species and forests.

NATURE-BASED SOLUTIONS TO IMPROVE LIVELIHOODS AND LANDSCAPES

CRS' SPICES program (2020-2030) partners with local communities, governmental agencies, the private sector and other key actors through a multi-sectoral approach within biodiverse agriculture landscapes to improve the livelihoods of small and medium holder farmers through market led nature-based solutions that can be replicated and scaled. Over the next decade, SPICES will collaborate with partners and stakeholders who are currently actively engaged and promoting the agriculture – environment nexus to ensure a sustainable trajectory forward by continuing to build, co-invest and scale mixed agroforestry approaches to restore agricultural landscapes and provide farmers and communities with tools to adapt to climate change. SPICES is informed by and aligned to Government of Madagascar (GOM) climate change adaptation and mitigation strategies which are based on global objectives, including those established by the Sustainable Development Agenda, the UN Framework Convention on Climate Change (UNFCCC), Sustainable Forest and Landscape Restoration (AFR 100) and the Convention on Biological Diversity. Partnerships at different levels will serve to operationalize land restoration and agriculture production goals based a common vision, provide research support, improve monitoring and learning, increase access to technology and resources, and support coordination among multiple actors—while ensuring a people centered approach on improving livelihoods.



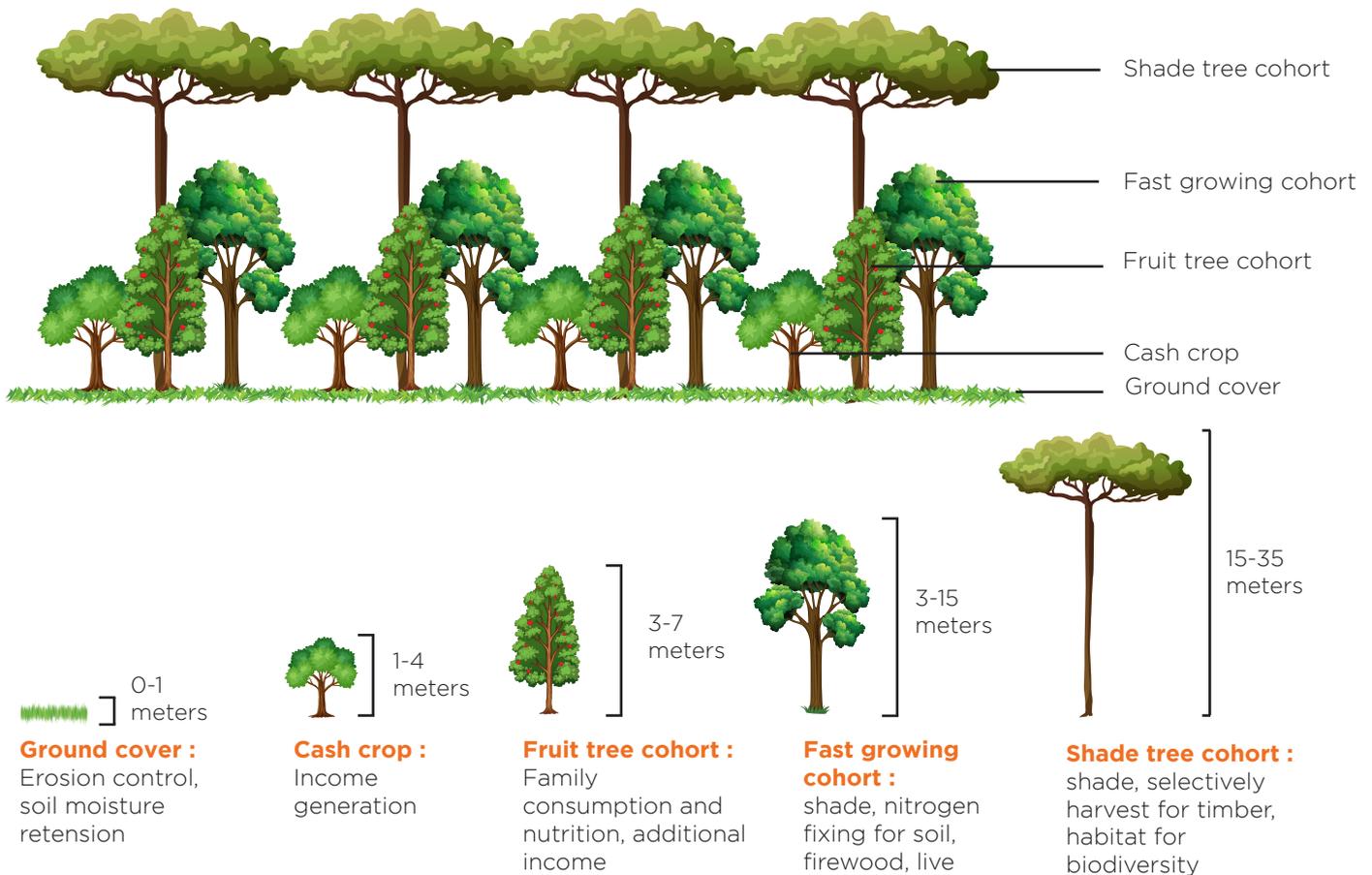
Adapted to ecological zones, SPICES promotes a people centered climate smart agriculture approach through agroforestry-based value chains that includes spices (vanilla, cinnamon, pepper), cacao, coffee, fruits, fuelwood among others within biodiverse agriculture landscapes. National and global markets have seen significant increases in the demand for Malagasy spices and products. These increased revenue streams allowing households to invest more in education, nutrition and health needs for their families. Tree nurseries run by local communities will also be enhanced with indigenous species that can serve to enhance the regeneration and protection of forest habitats and water catchments within targeted landscapes that serve to directly benefit agriculture production.



Landscape in Vavovavy Region / Photo by CRS Madagascar

A MIXED AGROFORESTRY APPROACH

SPICES promotes a mixed and multistory agroforestry approach which has been identified as key nature-based solution that can protect, sustain and restore natural ecosystems. The SPICES agroforestry approach integrates food and cash crops with trees and shrubs that can help improve critical ecosystem services (soil, land and biodiversity) and provide quality products for the market and consumption. Agroforestry provides many benefits that include favorable microclimate, reduction in erosion, increased water quality, and improvement in soil fertility and enhanced habitats ecosystems services (biodiversity), including increased habitat for Madagascar's lemurs, birds and other wildlife. Agroforestry provides a sustainable solution in response to land and forest degradation and can bridge the gaps between climate change adaptation and mitigation strategies.



Farmers in Madagascar often produce on small plots of land which requires improved agricultural techniques to sustain production and ecosystem services. Agroforestry allows farmers to produce up to 2000 plants and trees on one hectare of land, combined with cover crops like legumes and vines like vanilla and pepper, creating an amazing opportunity for farmers to benefit both in terms of return on investment in these systems with diversified crops but also land that has been restored and can continue producing for years to come. The shade levels built in these systems also are critical to manage sunlight on crops below and the highest trees can offer habitat for critical biodiversity that contributes to seed dispersion and pollination among other benefits. Within the SPICES targeted biodiverse agricultural landscapes, forest habitats and water catchments will serve as the pillars for ecosystem services to ensure sustainable land use and productivity of agriculture lands in collaboration with the local population.

AGROFORESTRY SYSTEM BENEFITS



Improved Soil Conservation and Management



Protected and expanded habitats for biodiversity



Efficient use of water



Increased Diversification



Increased Profitability

PRIVATE SECTOR ENGAGEMENT

Private sector partners are central to ensuring that farmer associations and cooperatives are commercially viable and profitable within a market system and catalyzing green businesses and entrepreneurs in support of people, planet and profits. By working with both Malagasy and international companies with social and environmental objectives and sustainable sourcing practices for spices and other products, SPICES works with over 15 companies in target landscapes to provide technical training and purchase products along the value chain and invest in ecosystem services while building direct relationships with farmer cooperatives and communities to ensure fair prices and long term partnerships. SPICES will also invest in agri-businesses and green energy companies through impact investments that can help small and medium enterprises (SME) to expand reaching more farmers, youth and communities through strengthened value chains and employment.

YOUTH ENGAGEMENT AND LOCAL LEADERSHIP

SPICES engages and mobilizes young men and women to understand the opportunities along the nature-based value chains from production to consumer as well as being key stewards of the environment in their communities. Education, training and leadership opportunities, employment readiness and entrepreneurship will be prioritized. By gaining basic financial skills through CRS' Savings and Internal Lending Committees (SILC) approach, leadership & life skills, vocational training and business management competencies, youth will be able to directly engage and invest in agriculture-based livelihoods and economic opportunities. SILC also helps with resource management at the household to better save and invest for education, health and nutrition needs. These next generation farmers and leaders will help to lead the way for more long term community development. Working with local partners is also important for SPICES to build off local experience and expertise. Centre ValBio (CVB) will lead work on biodiversity and the production of endemic trees while the Organe de Developpement du Diocèse de Toamasina (ODDIT) will lead community based activities in the east.



Youth group in nursery for a reforestation activity in Mananjary (Vatovavy Region) Photo by CRS Madagascar

CRS TRANSFORMING LIVES AND LANDSCAPES

2030 GLOBAL IMPACT MILESTONES

- 40%** Average increase in crop yields
- 1,000,000** Farmers adopting restoration approaches
- 1,600,000** Hectares under restoration
- 126,000,000** USD external investment mobilized

2030 MADAGASCAR IMPACT MILESTONES

- 40%** Average increase in crop yields
- 30,000** Farmers adopting restoration approaches
- 200,000** Hectares under restoration
- 30,000,000** USD external investment mobilized

