

## A model Climate Smart Village - the case of Rushinga Village

What started as a mere mitigation of the effects of COVID -19 on food and nutrition security in the context of climate resilience has led to the first-ever model climate-smart village in the drought-stricken village of Rushinga in Zimbabwe, as the project attracts the interest of several investment partners. Nine months of implementation of the climate-smart-related activities have already started generating fruits, not only for the targeted project beneficiaries but also for the surrounding communities who are joining the initiative.

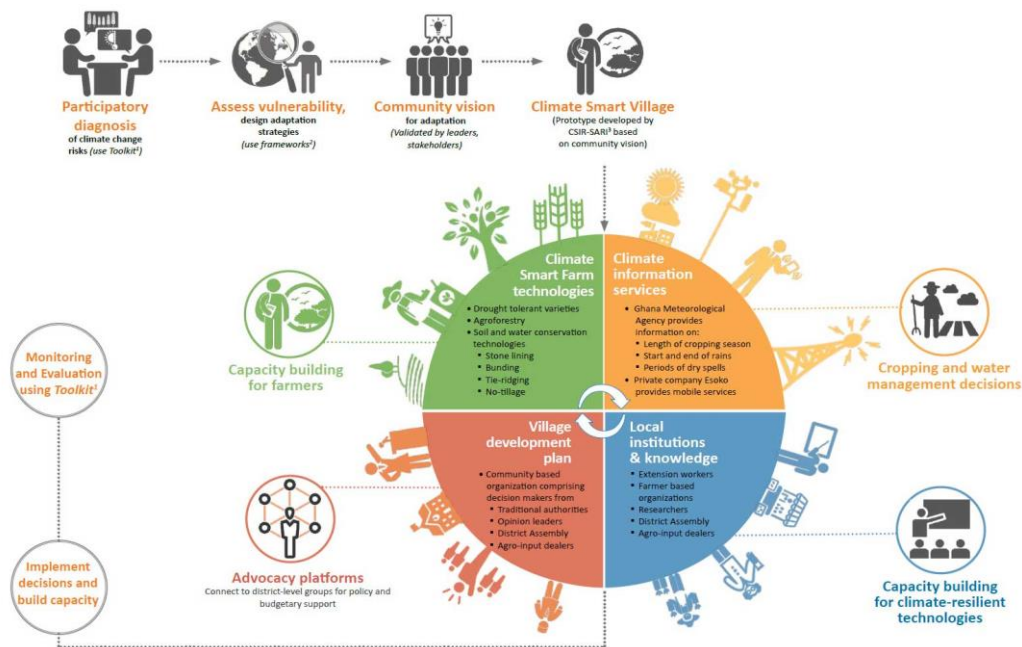


Figure 1: Infographic presentation of the key concepts of a Model Climate Smart Village. Source icrisat.org

Over the past decades, households in Rushinga district have been experiencing the harsh realities of climate change. Its negative impacts, such as droughts and floods, have become more apparent in the district. The households in Rushinga have a low adaptive capacity due to socio-economic factors, including ecosystems that are characterized by human insecurities threatening livelihoods, unsustainable landscape management, as well as the degradation of forests and land. The COVID-19 pandemic restrictions worsened the situation and reduced their adaptation options. Thanks to the climate-smart project, funded by the EU, through SADC and implemented by the Center for Coordination of Agricultural Research and Development (CCARDESA). In partnership with Grow A Tree Foundation, the project provided the most critical resource for production, “water,” amongst other investment support, currently benefiting over 100 households and expanding to reach 500 beneficiaries by 2023. The major thrust is to mitigate and address the causes and effects of deforestation through aggressive and holistic tree planting and sustainable agroforestry programs in industrial, commercial farming, and rural community settings by mitigating the impact of the COVID-19 pandemic on food and nutrition security through climate-smart interventions. The project beneficiaries have already started tasting the benefits of their sweat. They are now harvesting and selling the produce from the fast-growing vegetable crops (Cabbages and tomatoes) while waiting for the fruit trees to mature. The communities started harvesting tomato fruits in July 2021 and were generating an average of USD 60 per week from the sales. A total of 6000 cabbages, 6000 tomato plants, 5000 onions, and 3000 green paper seedlings were procured and distributed to the beneficiaries in the first cycle of production.



*Figure 2: A beneficiary of the energy efficient cooking stove at Rushinga poses for a photograph after installation of the stove*

The project uses an integrated approach that looks at all aspects of human needs by establishing a model climate-smart village, the first of its kind in the country. All possible relevant climate-smart technologies including; two solar-powered irrigation systems, a biogas digester, an aquaponics system and fish pond, 100 efficient cookstoves, 60 beehives and machinery for honey processing, a solar-powered hatchery for the production of road-runner chickens, solar-powered dehydrator to process dried fruits and vegetables and a one-hectare plot with a variety of fruit trees are being established. This approach has attracted several other development partners who pledged to invest in different projects of the climate-smart village.

The functional climate-smart village will cater for food and non-food trees and vegetables considered to be critical in the project for landscape and ecosystems restoration, addressing food security and nutrition by broadening livelihood options and leveraging the established woodlands for carbon sequestration. The latter is important for climate change mitigation and, over time, to contribute to the generation of carbon credits. This approach, including linking the activities to the national and global policies and strategies on climate change mitigation, has generated interest from different stakeholders. This includes two local banks and other companies who supported the fencing of fruit tree orchards, supplied more fruit trees, and are

installing cookstoves to reduce deforestation. The Forestry Commission is training beneficiaries on sustainable forestry management while C-Quest capital is providing 5000 efficient 5000 cookstoves.

The gains from the current initiatives could be enhanced if additional support on equipment for solar-powered cold rooms, machines for drying and processing fruits, vegetables, and installation of aquaponic systems, and more water reservoir including installation of taps for households. Rolling out of a full and functional climate-smart village can serve as a demonstration site for learning in the SADC region. There is a potential to demonstrate sustainable management of natural resources using the Water-Energy-Food-and Health Nexus approach. The site can also serve for testing different climate-smart agriculture technologies and conservation models.

It has been demonstrated that climate change can not be tackled as a stand-alone challenge. Measures that provide sustainable energy, food, and nutrition security and health would have far-reaching benefits in managing the effects of climate. Managing climate change itself, however, requires actions at scale.