



Bimajo Juma pollinates her new vanilla crop. The vanilla will be harvested and sold through a newly established farmers co-op formed with the support from Community Forests Pemba in partnership with a fair trade certified company. Pemba, Tanzania

Scalable Resilience: Outspreading Islands of Adaptation: New Technology Sharpens Project Focus

Collecting data in the field is the first step towards evaluating the effectiveness of a project, but the data must be used to inform decisions. How can we quickly analyse collected data to evaluate project progress against our key performance indicators (KPIs) in real-time? Our solution analyses the data against the project indicators to provide real-time, high-level evaluation of project progress.



Community Forests Pemba Spice Officer, Yahya Sulieman photographs Hamad Omar Mwitanii of Mtambwe Kaskazini Village in his 4,581m² agroforest system. Yahya collects data and photographs, makes notes, and tracks progress using the newly developed FieldVIEW software.

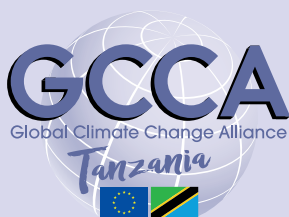
“Being able to effectively report on project outputs, outcomes and impact is central to the project’s success,” said J. Michael Tritchler, Data and Financial Officer, Community Forests Pemba.



Introducing FieldVIEW

Community Forests Pemba (CFP) is based in the Zanzibar region of Tanzania, on Pemba Island. As part of its project-level M&E approach, CFP has developed a tablet-based data collection and analysis system known as FieldVIEW. This approach allows all project staff to have up-to-date access to key monitoring data. Since 2015 the project has been working on an eco-village approach, funded through the European Commission’s Global Climate Change Alliance, called “Scalable Resilience: Outspreading Islands of Adaptation”. Over the course of the 5-year project, project staff have worked with more

than 23 communities on the island of Pemba, Zanzibar, to help community members adopt and develop new strategies for climate change adaptation. Such strategies, known as adaptive livelihood activities, include but are not limited to reforestation, agroforestry, renewable energy generation and poly-culture spice farming. Communities benefit from learning and practicing climate change adaptation; climate change mitigation; and income generation.



Funded by
the European Union

Fast data tracking and consolidation

A successful project needs to provide reliable and accurate information on achievements in the context of project indicators. Community Forests Pemba has been refining its data collection system to centralize project information. FieldVIEW tracks information on project beneficiaries, inputs, outputs, outcomes and impact.

The system incorporates a unique syncing feature that allows for all data to be accessible on each tablet even without internet access. After a field visit, project officers can synchronize their system with the master system to merge all updates saving time and money. To date, the synced data is analysed periodically for both internal and external reporting, and informs project planning. However, the project has identified the need to streamline the data analysis to provide up-to-date project information in an accessible format for project officers and management. This has led to the development of a web-based dashboard that provides real-time analysis of the collected data against project KPIs. The project will also provide open access to the dashboard for government and community stakeholders, donors, and the wider international community, after receiving approval from the Zanzibar Government as per national requirements when publishing statistics online.



Salma Zahran Hamad has built and sold over 100 fuel-efficient cookstoves in her community, helping her pay for the continued education of her oldest daughter. Kiungoni, Pemba, Tanzania.

Tech approach

FieldVIEW is a custom-build data collection system using FileMaker and is deployed on iPad minis using FileMaker Go. Project officers each have a tablet that they bring with them when they travel to the field. Direct trainees (beneficiaries) are registered on FieldVIEW. Project inputs (training, equipment, field visits) and outputs (kitchen gardens, cook stoves produced, etc.) are continuously collected and linked with the registered trainees. Outcome and impact level results are collected through annual surveys with a statistically significant random sampling of the registered trainees.

The data had been analysed bi-monthly and for annual reports using a combination of Excel and Python (a programming language with statistical packages for data analysis) to report on project progress. However, Community Forests Pemba project officers and management have identified a need to easily access, in real-time, the analysed project data. To achieve this, the project is developing a dashboard to provide analysis of achievements against indicator targets using the data collected in FieldVIEW. The dashboard uses all open-source software.

Sharpening our focus

Data collected through FieldVIEW has helped the project become more effective:

- Within the project beekeeping activities, there was a focus on enterprise development for beekeeping cooperative beneficiaries. However, data shows that the market demand is there (most beekeepers sell between 75 and 100% of their honey), and the challenges are more on the technical side of how to produce more honey to meet the demand.
- Conversely, FieldVIEW shows that cook stove producers have the technical skills to produce the stoves, but require support with marketing their products.

The way forward

Streamlining data collection and analysis has improved internal decision-making and supported external visibility and communications.

Community Forests Pemba is now shifting from periodic analysis of project implementation towards continuous real-time analysis using a web-based dashboard. The development of the dashboard is still in its early stages, but the process for quickly syncing the web-based system with the data collected in FieldVIEW is already in place.



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