# Cassava Diagnostics Project impacts: Rwanda

*CDP Rwanda are boosting local farmers' cassava yields by providing clean planting materials.*

## What is CDP?

Funded by the Bill & Melinda Gates Foundation and the UK Department for International Development, the Cassava Diagnostics Project (CDP) has been working with institutes across East Africa since 2009 to diagnose, track and sustainably manage cassava viruses. Cassava is a staple crop for 500 million people in Africa and is currently threatened by two devastating viral diseases: Cassava Mosaic Disease (CMD) and Cassava Brown Streak Disease (CBSD). CDP has therefore been working to combat these diseases and so prevent widespread famine – by ensuring that cassava remains a reliable food source across Africa.

Phase 2 of CDP will close in 2018, and researchers are therefore taking the opportunity to reflect and learn lessons from almost a decade of work.

## CDP's work in Rwanda

The Rwanda branch of the Cassava Diagnostics Project (CDP) is based in Kigali at the Rwanda Agriculture Board (RAB), which undertakes both agricultural research and community engagement to introduce farmers to best practice and better technologies. As CDP draws to a close, the project's Country Team Leader for Rwanda (Marie Claire Kanyange) explains its impacts and its legacy in the region.

## Capacity building at the RAB

CDP has had a range of impacts that will have long-term effects in the region, including considerably expanding RAB's capacity to undertake lab-based research.

When the first CDP surveys were run, the International Institute of Tropical Agriculture (IITA) had to provide RAB with the materials and equipment needed for DNA extraction. Once extracted, DNA was then sent to IITA in Uganda for analysis, resulting in a delay between sample collection and results being available.

Thanks to funding from CDP Phase 1, RAB was provided with the equipment and training needed to conduct a range of lab-based analyses, including DNA extraction and amplification using Polymerase Chain Reactions.

According to Marie Claire, the ability to conduct these kinds of analyses is a major advance for RAB, as it allows the team instant access to results. This means that they can rapidly build maps to visualize data as they go along, allowing them to respond quickly to high disease pressure by deploying clean planting material to at-risk farms. This prevents further infection and protects yields.

> "Our government did not think that we could do DNA analysis but they now recognize that it can be done"

There are now five researchers at RAB in Kigali who are trained in DNA extraction and analysis procedures. And after CDP closes, this improved capacity will allow the team to take on further projects with a focus on DNA analysis.

Raising the profile of RAB's capabilities in this way will lead to increased government support and it opens up the opportunity to translate CDP's recommendations into policy – an important step in further establishing the project's legacy.

## The CDP network

Marie Claire also notes that the network of researchers created through CDP will also be an important part of the project's legacy. Shared goals and time spent together have given the Rwanda-based researchers the opportunity to share their ideas and exchange knowledge with scientists in all other six CDP countries. Exchanging planting material and protocols, for example, has allowed all the teams involved both to work more efficiently and to benefit from each other's successes. These materials are also now available long-term for the researchers on the AgShare platform.

AgShare's training courses in project management, scientific writing and data management have also helped teams to connect. Attended by CDP team members from all seven countries, course collaborators have been able to meet and interact in a meaningful way while learning important skills for the future.

Marie Claire believes that even after CDP closes, the network will remain active: "we will all still need information from one another so we will keep in touch". So, an important legacy from CDP is that the scientists involved will continue to share knowledge and support one another in future research to combat CMD and CBSD.


**Contact us**

Email: m.millan@agshare.today

Tel: +44 (0)20 8672 5975


*CDP team members from all 7 countries met to be trained in data management and scientific writing.*


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