RESEARCH PROGRAM FOR Integrated Systems for the Humid Tropics

CIALCA

making a difference for farming families in Central Africa

CIALCA is a Humidtropics research for development platform in the African Great Lakes region. By working collaboratively on closely interlinked issues, we aim to reinforce our impact on smallholder livelihoods.


Neil Palmer, CIAT

"In the future, a big question will be whether the land and the soils that underpin farm yields can support booming populations under new constraints like rapid climate change and other environmental factors. Without sustainable intensification of food production, there will be a high price. We will be going back to the situation of war. War for food, war for space."

- Nteranya Sanginga, Director General IITA.

A consortium for change

The Consortium for Improving Agriculture-based Livelihoods in Central Africa (CIALCA) is an inclusive research for development partnership spearheaded by Bioversity International, CIAT, and IITA. Launched in 2006 in Burundi, Rwanda, and DR Congo, the Consortium works closely with national agricultural research centers and a myriad of development partners. An upstream research-support role is provided by the Belgian universities KU Leuven and UCL.

CIALCA's overarching goal is to improve the livelihoods of those who depend on agriculture through research investments in system productivity and resilience. Research themes are strongly defined by demands articulated by the participating countries, and research activities are jointly implemented and validated with a range of partners. Ready-to-use technologies are packaged and delivered to farmers by development partners who have received technical training and capacity support.

Our achievements

1. Improved banana varieties have proven extremely popular with farmers and extension partners. They are well adapted to local growing conditions, often yielding double the bunch-weight of local varieties.

2. Legume germplasm introduced by CIALCA is rapidly being out-scaled through farmer-led seed multiplication in Bas-Congo and the Eastern Province of South Kivu, DR Congo. More than half of the farmers involved in these schemes have adopted the improved seed.


Neil Palmer, CIAT

3. An increased production of soybean has prompted the further development of, and trainings on, various highly nutritious soybean products. By emphasizing the participation of women, CIALCA aims to strengthen gender equity and deliver nutritional benefits to young children in their care. Gender empowerment will be a key Humidtropics development outcome.

4. Innovative banana-coffee intercropping promises higher farm incomes, and increases the resilience of coffee systems to a warming climate. This has caught the attention of Rwandan and Burundian authorities, who are actively engaged in validating the technology.

5. Cassava-legume intercrop systems have seen significant improvements through the use of fertilizer in combination with manure or compost. Legume and cassava yields have increased by at least 40% and 20%, respectively. There are ongoing efforts to further fine-tune planting times and agronomy.

6. CIALCA has strengthened research and leadership capacity in national agricultural research systems. Eight PhD and 22 MSc students have graduated with supervision and mentoring from CIALCA, with several now holding senior research management positions.

+27% **increase in farm productivity.**

In the intervention areas, CIALCA innovations have increased average farm level productivity by more than 27 percent. Some yields have increased up to 179 percent[1].

+19% **increase in household income.**

By adopting market-oriented strategies, aggregate household income has increased by over 19 percent. Some farmers earrn an additional 60 to 90 USD per year from improved banana production and marketing.

+12% **increase in protein intake.**

Averaged across all of the CIALCA intervention areas, adoption of CIALCA technologies significantly increases protein intake. The consumption of protein has increased by at least 12 percent[2].

77% AWARE

37% ADOPT

CIALCA has created demand for innovations.

77% of individuals surveyed were aware of CIALCA technologies. A full 37% have adopted two or more CIALCA innovations in their fields. Farmers strongly attributed improved food security to the use of new CIALCA technologies[2].

"The foremost asset of CIALCA has been its adaptability, which has brought successes in some drastically different country contexts"[3]

Inspired by CIALCA

The Humidtropics Action Area for East and Central Africa has been identified as the former CIALCA region, expanded to include southern Uganda, western Kenya, and the Ethiopian highlands. Within the Action Area, specific Action Sites have been chosen in relation to the overall research and development questions and outcomes.

Humidtropics will build on CIALCA's achievements. Utilizing an R4D platform approach, Humidtropics is adapting its research for development model and cultivating new partnerships, including with policy influencers and private sector actors. Humidtropics is also strengthening ties with other CRPs, including Climate Change, Agriculture and Food Security (CCAFS); Roots, Tubers and Bananas (RTB), and Livestock and Fish.

"The large network of partners that CIALCA has managed to build and energize in just a few years shows how responsive it has been to mutual needs and how much can be done through shared priorities"[3]

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[1]CIALCA Rapid Assessment Survey, 2010
[2]CIALCA Impact Assessment, 2013
[3] T.P. Cox, 2010. Describing the CIALCA Organizational Model

CIALCA improving livelihoods
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