Achieving Food Security and Rural Prosperity across the Tropics

Partnership for impact: EC, IFAD, and CIAT

CIAT's global vision

The International Center for Tropical Agriculture (CIAT) conducts integrated research to make sustainable agriculture a reality for the three-quarters of the world's poor and hungry who live in rural areas and depend on crop and livestock production for a living.

To reach this aim, our research spans three areas: (1) agrobiodiversity, focusing on improved varieties of beans, cassava, rice, and tropical forages for livestock and livelihoods; (2) soils to open pathways to sustainably intensify agricultural production, while restoring degraded land and making agriculture climate-smart, and (3) applied policy research linked to climate change, ecosystem services, gender equity, and inclusive value chains. CIAT is also the lead center for the CGIAR Research Program on Climate Change, Agriculture, and Food Security (CCAFS).



CIAT's mission centers on the concept of ecoefficiency in agriculture: which leads to competitive and profitable food production and economic

empowerment for the world's poorest people, while helping reduce agriculture's environmental and climate footprint.

The Center operates across sub-Saharan Africa, Asia, and Latin America and the Caribbean, where our innovative research is carried out in partnership with other research organizations as well as donors, governments, civil society, and the private sector.

In partnership with EC and IFAD Rural development in the tropics

The European Commission (EC) joined CGIAR in 1977 and is one of the largest multilateral donors and investors, helping set research priorities, contributing scientific expertise and policy advice, and providing financial support. Europe's strategic investments in CIAT's research, administered by IFAD, over the years have made significant impact in strengthening food security, protecting natural resources, and fostering inclusive and sustainable economic development for smallholder farmers and rural communities.

Impact of EC investments

Climate smart and down to earth Climate Change, Agriculture, and Food Security (CCAFS) (2013-2015)

• CCAFS Latin America raised awareness of climatesmart agriculture among key regional institutions, outlining a new strategy for tackling the challenges.

- CCAFS supports Shamba Shape-Up, an East African TV show with 11 million viewers designed to help farmers increase their crop and livestock production sustainably by providing information on climate change and climate-smart practices that can be communicated to farmers.
- Climate, Food, and Farming (CLIFF), an international research network that links researchers and doctoral students working on agricultural climate change mitigation and adaptation, has grown to a total of 27 students at five CGIAR centers. The students have published peer-reviewed articles, made valuable contacts, and shared their research results, for example, with farmers in Indonesia, project managers at Oxfam International, and local government in China.
- Climate-smart villages are places where researchers and farmers come together to identify solutions (such as climate information services and improved production technologies) that are suited to local conditions. In South Asia, various organizations have recognized the value of this model and are starting to replicate it, with CCAFS technical support.

Ahead of the game

Emerging Pests and Diseases of Cassava in Southeast Asia (2012-2015)

- An initial workshop was conducted to promote South-South exchange a critical component in the success of the project.
- Stakeholders in Southeast Asia prioritized key pests



- and diseases threatening the region's cassava production and farmer livelihoods.
- Training has been initiated for both monitoring the spread of pests and diseases and for improved identification of pests and diseases.



Doing the dirty work

Increasing Smallholder Farm Productivity, Income, and Health through Widespread Adoption of Integrated Soil Fertility Management (2010-2012)

- Approximately 22,300 farmers were reached either through provision of seeds or capacity building across 14 sites in the Democratic Republic of Congo (DRC), Burundi, Zimbabwe, and Malawi.
- Post-harvest storage facilities were identified and implemented. In the DRC, farmers who aggregated their produce in post-harvest storage facilities to sell when prices had risen earned approximately 25% more income than farmers who sold produce immediately after harvest.
- Legume grain yields increased by an average of 500 kilograms per hectare.
- Linkages with microfinance institutions, warehousing receipt systems, and agro-input supply systems improved farmers' access to inputs.
- Operations for larger-scale processing of soy beans and other products began in DRC and Burundi, resulting in a net monthly income of about \$235.

2



Banking on biodiversity Conservation and Use of Tropical Genetic Resources (2008-2010)

- CIAT's genebank maintains the world's largest collections of beans (36,000 samples), cassava (7,000 samples), and tropical forages for livestock (23,000 samples). Representing diverse food groups, these collections make up a key part of the world's agrobiodiversity and figure importantly in South-South scientific exchanges.
- CIAT has deposited nearly 31,000 duplicate samples of seeds from its collections in the Svalbard Global Seed Vault as a safety backup.

Roots-to-riches Improved Cassava for the Developing World (2008-2010)

• Average cassava yields have doubled since CIAT started working in Asia, largely through widespread adoption of improved varieties but also due to

improvements in crop husbandry and market linkages.

• Since 2011, global cassava production has increased at an annual rate of 3.4% - reaching 256 million tons in 2011. CIAT is helping combat emerging pests and diseases, which threaten the crop, while developing improved varieties and expanding market linkages, especially in Asia, where the cassava industry generates billions of dollars a year and continued growth is expected.



3

Promise to partners

Our innovative research is carried out with the highest integrity and transparency, according to an agenda that is socially and environmentally responsible. We monitor and evaluate the impacts of all our programs to bolster meaningful knowledge sharing and learning. CIAT's endeavors are demand driven, harnessing creativity and incorporating environmental sustainability, gender equality, and policy and institutional considerations into our activities. CIAT ensures that donor investments lead to tangible results for the world's most vulnerable people.

Looking forward: Joint visions

CIAT's work harnesses global expertise and partnerships to mobilize high-quality scientific expertise for global efforts to reduce hunger and poverty, while also curbing environmental degradation and addressing climate change. In keeping with the EC's strategy to promote rural development, CIAT looks forward to continuing its work with longstanding partners, including the EC and IFAD, aimed at finding solutions to today's global challenges.

The global reach of CIAT research



CIAT Contacts

Ruben G. Echeverría
Director General
ruben.echeverria@cgiar.org

André Zandstra

Head, Partnerships & Donor Relations a.zandstra@cgiar.org

Headquarters

Km 17, Recta Cali-Palmira Apartado Aéreo 6713 Cali, Colombia

Phone: +57 2 4450000 E-mail: ciat@cgiar.org

www.ciat.cgiar.org

Africa Regional Office

c/o International Centre of Insect Physiology and Ecology (ICIPE)

Duduville Campus, off Kasarani Road P.O. Box 823-00621

Nairobi, Kenya

Phone: +254 20 8632800 or +254 72 1574967 **Robin Buruchara** - r.buruchara@cgiar.org

Asia Regional Office

c/o Agricultural Genetics Institute

Pham Van Dong Street

Tu Liem (opposite the Ministry of Security)

Hanoi, Vietnam

Phone: +84 (0)43757576969

Dindo Camplain - d.campilan@cgiar.org