...boosts environmental resilience

Climate-smart agriculture

Tanzania has lost about 20% of its export revenue due to a >1 °C increase in minimum temperature over the past 40 years. Our research shows that climate-smart agricultural practices such as shading in the mid-altitudes and sustainable intensification at higher elevations can help sustain coffee production and yields.

Together with our partners we have developed practical climate-smart technologies for farmers, such as targeted and integrated soil nutrient management, shade trees, plantation rejuvenation, and innovative biocontrol. We have also developed novel approaches that link our research outputs to scaling partners. For example, we have reached out to Ghana's largest cocoa cooperative to bring climate-smart knowledge to the voluntary certification standards in collaboration with CIAT.

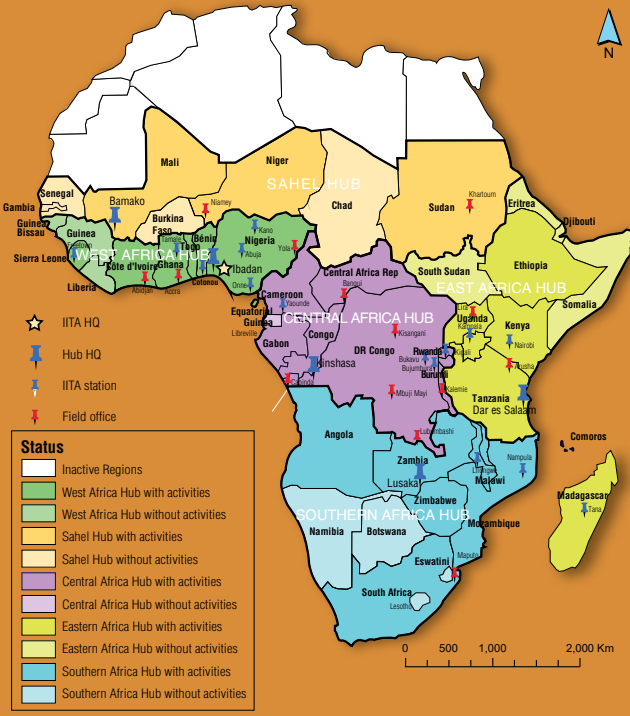
IITA Transforming African Agriculture

CGIAR

With science we can

Where we are

IITA works with approximately 85% of national systems in sub-Saharan Africa.



IITA R4D stations serve our scientists and partners across sub-Saharan Africa. (Map by IITA)

We are a member of CGIAR, a global research partnership that engages in research for sustainable development for a food secure future that carries out research through 15 research centers in collaboration with hundreds of partner organizations.

Feb 2025

Who we are

IITA is the lead research partner facilitating agricultural solutions to overcome hunger, poverty, and natural resource degradation in the tropics.

The International Institute of Tropical Agriculture (IITA) is a not-for-profit institution that generates agricultural innovations to meet Africa's most pressing challenges of hunger, malnutrition, poverty, and natural resource degradation. Working with various partners across sub-Saharan Africa, we improve livelihoods, enhance food and nutrition security, increase employment, and preserve natural resource integrity. IITA is a member of CGIAR, a global agriculture research partnership for a food secure future.

www.iita.org

Our science...

...grows more food

Amazing maize

Research on maize improvement by IITA and partners shows increased harvests and enhanced livelihoods of farmer-beneficiaries in sub-Saharan Africa. Total net benefit from maize research in West Central Africa from 1981 to 2005 alone using varieties from IITA and national programs is estimated at US$6.8 billion.

On the horizon

IITA and partners have developed and tested transgenic bananas resistant to Banana Xanthomonas Wilt. This disease has caused losses of about $2-8 billion over the last decade, threatening the livelihoods of millions of smallholder farmers. Banana constitutes more than 30% of the daily per capita caloric intake in the Great Lakes region of East Africa.

...enhances health and nutrition

Biofortifying African food staples

IITA and partners have developed vitamin A cassava varieties that helps improve the nutrition of women and children. Vitamin A deficiency afflicts almost 20% of pregnant women and 30% of children under 5 years, resulting in stunting among children and night blindness and increased risk of mortality in pregnant women.

Breaking the mold

In Africa, about $450 million in trade is lost annually due to aflatoxin contamination. IITA and partners developed a biocontrol product called aflasafe™ that, if used with other management practices, reduces aflatoxin contamination by more than 80–90% in maize and groundnut, increases crop value by at least 25%, and improves the health of children and women.

...improves livelihoods and incomes

Biological control always a winner

Ground-breaking research by IITA and partners on biological control of pests and diseases to reduce pest populations and their damage to crops and food products represents 80% of the total impact of IITA's work with national agricultural research systems in sub-Saharan Africa. Releasing a natural enemy to control the cassava mealybug has led to about 90% reduction in cassava losses and about $29 billion in estimated value of crop recovery.

The youths have it!

By 2025, there will be 1.8 billion youth—aged 10 to 24—in the world, almost 89% of them in the developing world. IITA's delivery and knowledge sharing interventions ensure the development of the next generation of scientists, agribusiness entrepreneurs, leaders, and progressive farmers—through mentoring youths in science and research, agriculture, and agribusiness.