Stalemate over organic farming slows progress in effort to combat food insecurity in Central Africa

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The polarized debate over the use of organic and inorganic practices to boost farm yields is slowing action and widespread farmer adoption of approaches that could radically transform Africa's food security situation, according to a group of leading international scientists meeting in Kigali this week.

"The ideological divide over approaches to farm production are a distraction from the actions needed to address food security now and ensure it in the future," said Nteranya Sanginga, director general designate of the International Institute of Tropical Agriculture (IITA). "Persistently high food prices and low farm yields are weakening Central Africa's food security and putting the region's fragile stability and economic growth at risk."

"Climate change, rapid population growth, and intense land pressure are major challenges for the region. It's time to focus on practical, evidence-based solutions that will forever end the cycle of hunger, poverty and civil conflict," he added.

Over 200 leading African and international scientists met at the first conference of the Consortium for Improving Agriculture Based Livelihoods in Central Africa (CIALCA) in Kigali, Rwanda, this week. Participants identified several practical solutions that would help move the region towards a food security. These include scaling up farmer

adoption of new technologies that improve degraded soils through more efficient use of inorganic fertilizers, new higher-yielding varieties of staple crops that improve nutrition, and mixed farming and intercropping approaches for crops like banana, coffee, and grain legumes.

"For many, fertilizer is a dirty word," said Bernard Vanlauwe, acting director of the Tropical Soil Biology and Fertility research area at the International Center for Tropical Agriculture (CIAT). "We have to focus on approaches that improve livelihoods."

"It does not have to be a choice between organic or inorganic; both approaches can work well together at different stages in agricultural development," said Vanlauwe.

Participants at the CIALCA conference reached consensus that agricultural research and development efforts should focus on the middle ground, increasingly referred to as sustainable intensification, which combines the most effective and sustainable approaches to improving farm yields.

"Sustainable Intensification is the best way to tackle rural poverty and hunger in regions with huge land and population pressures," said Vanlauwe.

Fertilizer use in Africa is by far the lowest in the world. On average, African farmers apply about 9 kg per hectare of fertilizer compared to 86 kg per hectare in Latin America and 142 kg per hectare in Southeast Asia.

"African agriculture is already organic. It's not working," said Sanginga. "We need to focus on practical things that help, not ideology."

Agricultural researchers have found ways to dramatically reduce

fertilizer use – while boosting crop yields. These include site-specific recommendations, partly based on detailed satellite images of African soils, and a technique known as micro-dosing, which involves the application of small, affordable quantities of fertilizer during a crop's growing period.

New research by CIALCA scientists has shown that intercropping banana and coffee can benefit both the environment and farmers' incomes compared to growing each crop separately. Banana -- a food staple for millions across the region -- provides a shaded canopy for coffee plants, which results in higher yields, less soil erosion, and more money for the farmers. Scientists also noted that this approach is 'climate smart' because the shade could buffer heat-sensitive coffee crops against the predicted impacts of climate change.

Improved climbing bean varieties being grown by thousands of farmers in the region have been particularly well-received, producing three times the yield of ordinary bush beans. On tightly-packed, small farms, the new bean varieties make valuable use of limited space by growing upwards instead of sprawling outwards. They also improve soil fertility through nitrogen fixation, and when grown in rotation with maize – another crucial African staple - maize yields have increased substantially, and the need for fertilizer reduced.

At the close of the CIALCA conference today, participants will recommend the priority actions for agricultural research and development efforts in Central Africa. For outcomes and updates, please visit http://CIALCAconference.org.

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