



Updates & News Alert

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Editor's view: Introducing the August 2019 CA Alert



Agriculture remains vital for many African Countries' development and economic growth, providing livelihoods for up to 80% of the population, and it forms a significant productive base for the development of the other sectors. It is well established that GDP growth due to agriculture is at least three times more effective in reducing poverty in resource-poor, low-income countries than growth in other sectors. The multiplier effect is estimated to be much higher in sub-Saharan. However, agriculture in African countries needs to be fundamentally transformed, away from the conventional tillage-based Green Revolution type agriculture, to agro-ecologically-based no-till Conservation Agriculture (CA) in order to achieve sustainable production intensification for community-based rural development. This is greatly a major

concern that defines the heart and perspective of ACT's core mandate.

In Africa, a new trend is emerging in the adaptation and promotion of sustainable mechanized Conservation Agriculture. Supported by Agenda 2063 (The Africa We Want) to banish the hand hoe by 2025, and the framework for Sustainable Agricultural Mechanization in Africa across Agri-food Chains, the new unstoppable wave to modernise Africa's agriculture using science, technology, innovation and indigenous knowledge is on the rise.

We remind our readers that we are now open to receive case studies or research articles related to Conservation Agriculture-based sustainable intensification to be considered for publication in the Information Series

<https://tinyurl.com/y5s4ojrq>.

The September 2019 alert will focus on the sustainable agricultural mechanization initiatives undertaken by the African Union and the Food and Agriculture Organization of the United Nations in collaboration with ACT.

ACT acknowledges the various sources, authors, reporters, organizations and practitioners whose articles appear in this August 2019 issue.

Please you submit articles, links or views to kim@act-africa.org. Use the [#conservationagriculture](#), [#africamechanize](#) to share links on articles, journals, news on Conservation Agriculture – based sustainable intensification for the "information series", and tag us on twitter [@ACTillage](#).

Mechanization powers the way to Africa's sustainable development

TICAD7 hears renewed calls for sustainable agricultural mechanization in Africa



Sustainable no-till seeding from a July 2019 event in Igawaye, Dodoma Tanzania. Photo: Saidi Mkomwa/ACT

30 August 2019, Yokohama –

Agriculture is crucial to Africa's development but needs increased mechanization to boost economic productivity, reduce harvest and post-harvest losses and meet growing demand for food. This is one of the messages that has emerged during the seventh Tokyo International Conference on African Development (TICAD7) held in Yokohama, Japan.

Sub-Saharan Africa has the world's highest area of uncultivated arable land but productivity lags far behind other developing regions. Yields are only around half of the international average, far below the growth levels needed to keep pace with food demand driven by population growth. Mechanization, can dramatically improve the yield gap.

At a TICAD7 side-event hosted by the Coalition for African Rice Development (CARD), a framework for sustainable agricultural mechanization in Africa was presented by the African Union Commission (AUC) and the Food and Agriculture Organization of the United Nations (FAO).

"Through appropriate mechanization, small scale farming can be transformed to a more market-oriented business, improving labour productivity and helping enable farmers to lift themselves out of poverty. To achieve this, we need

to enhance access to mechanization services," FAO Director-General Qu Dongyu said in his speech at the event.

"We need to relieve farmers of hard manual labour, particularly women, who have the double burden of working in the fields as well as caring for their households," the FAO Director-General added.

The framework, which was launched last year and is gaining traction in the region, aims to help countries replace antiquated tools with modern mechanization methods to achieve food security, agricultural development and overall economic growth.

It sets out priority elements for national mechanization strategies, including learning from other parts of the world where significant transformation of the agricultural sector has already occurred within a three-to-four decade timeframe, and supports the development of policies and programmes to realize Africa's goals.

Unharnessed power

Mechanization in the 21st century can provide much-needed support to the entire agricultural value chain. Driven by the private sector, mechanization should be environmentally-competitive, climate-smart, economically viable and

affordable, especially to small-scale farmers who constitute the bulk of African farmers. It should also target youth specifically to make agriculture more attractive for employment and entrepreneurship.

Full mechanization along the value chain includes enhancing access to mechanization services, improving access to quality and affordable inputs, such as seed and fertilizer, delivering efficient water resources management systems including irrigation, and reducing harvest and post-harvest losses through threshing, drying, and storing, adding value through milling, processing and packaging, and improving market access through transportation.

FAO is organizing regional and national training workshops to support small-scale mechanization in Africa, and is supporting national governments to develop strategies based on the FAO/AUC Framework for Sustainable Agricultural Mechanization in Africa.

This news release was issued by the [FAO Regional Office for Africa](#)

[Read story online](#)

Greater resilience needed for African food security in the face of climate change

Resilience must be boosted in Africa in response to climate change, according to participants at the high-level [Africa Food Security Leadership Dialogue](#) hosted by the Government of Rwanda in Kigali (5-6 August 2019), in partnership with the Food and Agriculture Organization of the United Nations, the African Union Commission, the African Development Bank, the International Fund for Agricultural Development and the World Bank.

“Farmers have always been innovators. What they need are policies that protect them and increase their resilience to climate change. They need access to information, technology, and investment, and they should be brought to the conversation on innovation,” FAO’s Deputy Director-General Maria Helena Semedo said.

[Building resilience](#) is among FAO’s key development priorities in Africa. Resilience against multiple threats, including climate change, is a key prerequisite for sustainable development, in particular when it comes to the challenge of feeding over 2 billion Africans by 2050. Semedo was speaking at a panel discussion on scaling up investments and policies for



food security in response to climate change, alongside African Union Commissioner for Rural Economy and Agriculture Josefa Sacko, President of the International Fund for Agricultural Development (IFAD) Gilbert Houngbo, the World Bank’s Vice President for the Africa Region Hafez Ghanem, and the Director for Agriculture and Agro-Industry at the African Development Bank (AfDB) Martin Fregene.

According to the [latest FAO data](#), hunger is on the rise in almost all African sub-regions making Africa the region with the highest prevalence of undernourishment, at almost 20 percent. The situation is mostly driven by conflict and climate change and is especially critical in Eastern Africa, where 30.8 percent (133 million people) are struggling to have enough to eat. [Read More](#)

Adapting African Agriculture to Climate Change

Climate change is already putting huge stress on Africa’s food production systems. And, according to projections, worse is coming. As Ministers for Agriculture from across the continent gather in Kigali for the Africa Food Security Leadership Dialogue, ensuring a secure and sustainable food supply must be at the centre of their minds. Over the past 20 years, Sub-Saharan Africa’s farming sector has grown faster than anywhere else in the world, with an average 4.6 percent agricultural GDP growth rate from 2000 to 2018 - that’s 1.4 percentage points higher than any other region. Thanks to infrastructure advances, such as roads and telecommunications and an increase in farm sizes, farmers are becoming better connected to markets to sell their crops and livestock at better prices and to obtain inputs and services such as seeds and insurance.

But these gains in agricultural growth are being eroded by climate change-

induced production shocks that push countries backward. Since 2007, Sub-Saharan Africa has experienced four major reductions in annual per capita food production. All of these declines coincided with severe droughts and floods. The frequency of large weather-related production losses has increased from once every 12.5 years (the average for 1982-2006) to once every 2.5 years (the average for 2007-2016). The large drop in food production during 2015-16 coincided with severe drought in East and Southern Africa and contributed to a rise in the prevalence of hunger across all of Africa - from 18.2 percent in 2014 to 19.9 percent in 2018.

What can government leaders, regional institutions, the private sector and development partners do to ramp up climate adaptation for Africa’s food systems? We see two major courses of action: unleashing the power of science and technology; and

improving financing. More research and development in climate-smart crops, livestock and farming practices are urgently needed to increase and sustain yields. Without this, areas of farm production will keep expanding, further degrading the soils, forested watersheds and landscapes on which food production depends.

We also need to facilitate greater adoption of existing and proven climate-smart technologies. In places where climate-smart agriculture is practiced today, farmers are seeing increased food security and resilience. In Rwanda, for example, the Land Husbandry, Water Harvesting and Hillside Irrigation project has helped control erosion, intensify yields on existing land and provide greater protection from droughts. [Read More](#) from the article by Laura Tuck, Vice President Sustainable Development and Hafez Ghanem, Vice President Africa Region, World Bank.

Harnessing synergies of crop-livestock integration for climate-smart agriculture

Integrated crop-livestock systems that provide synergies towards more resilient climate-smart agricultural production systems are possible despite the recognized competition between crops and livestock enterprises. To make this work, it is necessary to understand the trade-offs and capitalize on the opportunities provided through integration. Most research and development work on climate-smart agriculture (CSA) is focused on crops rather than livestock production systems. However, livestock often play a major role in smallholder production systems, where it is common to find chickens, small ruminants (goats and sheep) and in some cases cattle.

Where livestock are considered, they are often looked at as competition for resources between crops and livestock rather than as contributing synergies for integrated production. For example, conservation agriculture – one of the main CSA practices promoted widely – requires farmers to maintain soil cover, predominantly using crop residues. However, crop residues are a major source of feed for animals in mixed crop-livestock systems. Agroforestry systems such as improved fallow and mixed intercropping also suffer from similar problems, with multipurpose trees being prone to browsing by livestock in the off-season.

Despite these challenges, integrating crops and livestock can enhance the



climate resilience of farming systems. As an example, the Conservation Agriculture Scaling Up project in Zambia illustrates some of the benefits that can accrue when crop and livestock production are well integrated. This project is implemented by the Ministry of Agriculture with technical support from FAO. Benefits demonstrated include increased yields of maize and legumes (particularly cowpeas) and increased

milk production from dairy cattle. Manure from the livestock has been applied to fields, improving moisture and nutrient retention, which has contributed to higher yields. The livestock productivity benefitted from increased crop biomass production, which made it easier for smallholders to provide the extra crop residues to the livestock while at the same time adequately meeting the requirement for soil cover. [Read More.](#)

Namibia's Ministry of Agriculture Water and Forestry receives implements to support farmers

The Ministry of Agriculture, Water and Forestry has received agricultural implements and pheromone traps from the Food and Agriculture Organization (FAO) to support farmers to increase production. The donation includes 48 hand planters, 59 animal-drawn Direct seeder planters, 150 Magoye ripper flat tines and 140 Magoye ripper square tines with wings, 1308 Lures and 654 kill traps.

The ministry's executive director Percy Misika, who received the donation on Thursday, said the implements will be used to enhance conservation agriculture in promoting the adoption

and adoption of mechanised agriculture as well as increasing small-scale farmers' production and productivity. He said Namibia is grateful to FAO for the pheromone traps as it comes at the right time. According to him, the pheromone traps will be placed strategically in crop growing areas to monitor and improve surveillance of pest occurrence. "The availing of pheromone traps will strengthen the ministry's capacity in surveillance mechanism as well as early warning and forecasting systems, which are necessary to alert the ministry and farmers on the likely attack of the fall army worm," he said.

He said the ministry has adopted the lead farmer approach in line with the Namibia Agricultural Policy which embraces the mentorship farmer-to-farmer approach to implement conservation agriculture. Therefore, he says, these implements will be distributed to lead farmers for demonstration purposes. The agriculture sector remains central to the livelihood of the majority of the Namibian public. The sector directly and indirectly supports over 70 percent of the country's population for sustenance, incomes and livelihoods. [Read More.](#)

Carman event serves up common ground on soil health practices

Canadian and African agronomists shared perspectives on conservation agriculture at a recent Canadian Foodgrains Bank forum. Ten specialists working on Canadian Foodgrains Bank-supported projects in East Africa were invited to the Global Forum on Soil Stewardship in Carman.

The experiences with conservation agriculture shared by the East African agronomists from Kenya and Ethiopia became an eye-opener to many participants such as Jocelyn Velestu, Saskatchewan farmer and agronomist. Velestu raises cattle and grains with her husband and in-laws near Broadview, Sask. She characterizes the soil on their farm as “severely degraded,” but they are seeing improvements with a soil-first management strategy that has embraced adding diversity to their rotation through intercropping, perennials and reduced tillage.

“We are working to make decisions based on the soil and improving the soil while still maintaining our productivity and the economic viability of our farm,”



she said. For her family, conservation agriculture practices are about ensuring their farm can support future generations. For farmers in East African countries, it's about having enough to eat today. “It's really bringing a whole other perspective to it with the African agronomists here; they make the point that conservation ag is necessary for people to eat and for survival,” she said.

The six conservation agriculture specialists described how the practice

has changed the landscape in their countries, and how it has affected food security. “We wanted to make sure to create a forum for people to learn about (conservation agriculture), to hear more from African partners where the focus of our activities are but also that Canadian farmers have a chance to both learn about it but also actually to contribute to it,” said James Kornelsen, public engagement coordinator with the Foodgrains Bank. [Read More](#)

Events and Opportunities

NO-TILL CONFERENCE | BEWARINGSLANDBOU-KONFERENSIE 3RD - 5TH September 2019

Getting conservation agriculture WORKING FOR YOUR FARM using the no-till system is environmentally friendly – sustainable – exciting and fulfilling

The Purpose and The Take Home Message of The 2019 No-Till Conference is that ‘Soil is not dirt, but a complex living resource created by God that needs understanding, protection, respect, feeding mixed together with dedicated and caring management by those privileged to work it SUSTAINABLY.’

For more information visit: <https://tinyurl.com/y3rqfkux>. You can also view the video advert about the [event here](#).

Regional Conservation Agriculture Dialogue meeting 2019, Lusaka, Zambia: September 25- 27, 2019

With support from the FAO and the African Conservation Tillage Network (ACT), the CA Regional Working Group (CARWG) will organize a regional dialogue event for key CA stakeholders from September 25-27, 2019 at the Neelkanth Sarovar Premiere Hotel, Lusaka, Zambia. The event is expected to strengthen CA partnerships and will feature high level participation by key players in the region.

Purpose: The meeting aims to strengthen CA partnerships and develop a roadmap that will result in increased CA traction through alignment to Regional and National development frameworks.

Expected Outcome: Action plan for enhanced regional Partnerships so as to increase uptake of Conservation

Agriculture among smallholder farmers in Southern Africa

Proposed Dates and Venue: The workshop will be held in Lusaka, Zambia from 25th – 27th September 2019 (Arrival 24th September; Departure 28th September 2019). The venue of the workshop will be communicated in due course.

Participants: Government Representatives, African Conservation Tillage Network (ACT), Conservation Farming Unit (CFU), FAO, Conservation Agriculture Platforms (CARWG, NCATFs), Regional Economic Commissions (SADC, ECOWAS, NEPAD, COMESA), FARNPAN, Southern African Confederation of Agricultural Unions (SACAU), Research Organizations (CIMMYT, IITA, ICRISAT, CCARDESA), Academia, Private Sector and the Media.

The event is expected to strengthen CA partnerships and will feature high level participation by key players in the region. [Find out more](#)

Conservation Agriculture: Gateway for Sustainable Intensification of Smallholder Systems: November 7 - November 22, 2019



This course was initiated in 2010 and this is its 10th edition, which now includes participants from both Asia and North Africa. It is organized by the International Maize and Wheat Improvement Centre (CIMMYT) and the Borlaug Institute for South Asia (BISA), with support from the CGIAR Research Programs on Maize (MAIZE), Wheat (WHEAT) and Climate Change, Agriculture and Food Security (CCAFS). The course is organized in close collaboration with national agricultural research systems and partners in the region.

The advanced course on conservation agriculture will offer a unique capacity

development opportunity to the scientific community associated with natural resource management research for development (NRM4D). [Find out more](#)

Global Science Conference on Climate-Smart Agriculture: October 8 - October 10, 2019



Since the term climate-smart agriculture (CSA) was coined in 2010, the biannual global science conferences on CSA have emerged as the key global forum for scientific exchange to underpin CSA implementation.

The conference will build on the lessons from the previous conferences, with the overarching theme, "Transforming food systems under a changing climate," and will be held for the first time in Asia.

[Learn more](#)

The 8th World Congress on Conservation Agriculture (8WCCA), 29 June to 2 July 2020- Switzerland



8th World Congress on
Conservation
Agriculture

Bern, Switzerland
June 29th-July 2nd, 2020

The 8th World Congress on Conservation Agriculture (8WCCA) is jointly organized by the European Conservation Agriculture Federation (ECAF), and its member in Switzerland, Swiss No-till (SNT), with the support of the Food and Agriculture Organization of the United Nations (FAO) and the African Conservation Tillage Network (ACT). It will be held in Bern, Switzerland, from 29 June to 2 July 2020.

The theme of the Congress is: **The Future of Farming: Profitable and Sustainable Farming with Conservation Agriculture.** Find out more on this link [8WCCA](#)

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For more information, please contact: **Executive Secretary | African Conservation Tillage Network**
KARLO - Kabete, Waiyaki Way | P.O. Box 10375-00100, Nairobi, Kenya | Tel: +254 20 8076064; +254 774 895 077
Email: info@act-africa.org | Web: www.act-africa.org