Editor’s view: Introducing the November-December, 2018 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. However, inappropriate agricultural practices for so long has caused land destruction and degradation, deforestation, exploitation of water and soils, erosion, sedimentation, pollution, and even regional and local climate change. This sets in motion a vicious cycle, where farmers are faced with constantly declining crop yields from degraded soils and continued suffering as their mainstay incomes and livelihoods’ sources tend toward oblivion.

Thus, the need for agricultural transformation is imperative. Agriculture in Africa 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 a major concern that defines the heart and perspective of the African Conservation Tillage (ACT) Network’s core mandate. This is crucial in helping to lift people out of poverty and hunger in rural areas by providing a stable source of income by ensuring that dryland and rainfed agriculture is environmentally, economically and socially sustainable. ACT intends to play its full role in accelerating the CA revolution in Africa for sustainable development that can benefit all its people and their natural and altered environments. While this is a long way to go, a solid foundation has been established for CA to take off across Africa, thus, policy and institutional support from public, private and civil sectors across Africa need only to be aligned to support the mainstreaming and institutionalization of CA.

The future of agriculture development in Africa must be built on the foundation of Conservation Agriculture. Countries and regions where Conservation Agriculture is widely adopted are serving as domestic and global ‘bread baskets’ and maximizing the contribution of agriculture to local and national economic growth and prosperity. Some 50% of the countries in Africa are now seriously promoting Conservation Agriculture, and farmers are responding positively where comprehensive ongoing support can be organized. Empirical and scientific evidence from Africa and other continents show clearly that farmer-led
transformation is important but scaling up and for widest benefit sharing, farmers cannot adopt a new paradigm of agriculture own their own. Multi-stakeholder engagement and support to farmers is necessary.

The importance and role of CA in sustainable agricultural growth and economic development has been clearly documented and can, therefore, be considered as the most appropriate entry point in transforming agricultural production in Africa. However, the adoption and spread of CA in Africa has been slower than expected due to the appreciable challenges that must be overcome.

ACT will continue to build new and stronger partnerships, uncover new and more efficient frontiers for serving farmers and other on-the-ground stakeholders while contributing to global and regional alliances to unlock policy and investments support for the spread of no-till Conservation Agriculture (CA) across Africa.

Challenged by the above demand and its desire to fully realize the Networks Vision “To be a premier network of excellence in promoting sustainable agriculture and ecosystem management for improved livelihoods and wealth creation in Africa” and harnessing the momentum of institutional repositioning, a move has been made to redefine the network’s niche. ACT is now fundamentally established under three key niche pillars that defines its niche and area of focus. These key pillars have been defined as (1) Conservation Agriculture (CA), (2) Sustainable Agricultural Mechanization (SAM), and (3) Ecosystem Management (figure below)

This process of repositioning, refinement of the niche and development of the organizational structures is necessitated by the need to keep pace with dynamic nature of the agricultural sector and the requisites of being able to provide, demanded and innovative services to its members in Africa. For more information visit the our website www.act-africa.org

Besides, ACT acknowledges the various sources, authors, reporters, organizations and practitioners whose articles appear in this November 2018 issue, their geo-diversity is a clear testimony of the enthusiasm and interest from various organizations, countries, researchers and scientists in Africa towards Conservation Agriculture.

We encourage you to share your CA views and articles capturing the status and extent of adaptation and adoption of CA in any Country in Africa or beyond for sharing with others. Please submit articles, links or views to kim@act-africa.org. Use the #conservationagriculture, #africamechanize to share links on articles, journals, news on CA and tag us on twitter @ACTillage.

You can also share your views on what went well in the #ACC and what needs to be improved in the next Congress (2ACC) through the email cacongress@act-africa.org

Apologies for any cross posting of some articles.

Sustainable Agriculture

ACT’s Niche

1. Conservation Agriculture (CA)
2. Sustainable Agricultural Mechanization (SAM)
3. Ecosystem Management

Three key niche pillars that defines ACT
The 2ACCA was organized and hosted in Johannesburg, South Africa from 9 to 12 October 2018. The Congress was attended by 501 delegates, from 52 countries globally. African countries were represented by 37 countries, of which four were from North Africa, nine from Eastern and Central Africa, 11 from Southern Africa and nine from Western Africa. The categories of the delegates were government 19%, farmers and farmer organizations 12%, Research institutions and academia 29%, Non-Governmental organizations 24%, Private sector 11%, and Development Partners 5%.

The theme of the Congress was “Making Climate Smart Agriculture Real in Africa with Conservation Agriculture: Supporting the Malabo Declaration and Agenda 2063”. The main purpose of the Congress was to foster knowledge sharing, learning and building of public, private and civil sectors’ support for the Africa-wide adoption of Conservation Agriculture systems as a basis for Climate Smart Agriculture in the implementation of the Agenda 2063.

At the conclusion of this Congress, delegates identified the key take home messages for sharing at respective spheres of influence. These are meant to reach all Conservation Agriculture stakeholders, players and Interest groups including the African Union and its agencies, Regional Economic Communities in Africa, National Governments, Policy Makers, Farmers and Farmer Organisations, Private sector, Development Partners (both bilateral and multilateral), Research Institutions and the academia, Non-Governmental Organizations, and the Media. These take home massages were clustered in resolute document called Action Statement from Stakeholders of the Second Africa Congress on Conservation Agriculture available in the link 2acca action statement.
SACAU’s Majola Mabuza at COP24: How soil can help meet climate targets

The agreement, which has been under intense discussion by negotiators, requires keeping global temperatures in check — to no more than 1.5 degrees Celsius above pre-industrial levels. Delegates participating in a side event session on agriculture, which produces about a third of global greenhouse gas emissions, discussed the role of soil, presenting scientific evidence of the value of recarbonization. Much of the carbon that was formerly stored in soil, which acts as a carbon sink, has been released into the atmosphere, contributing to global temperature increases.

Majola Mabuza, program officer responsible for policy at the non-profit Southern African Confederation of Agricultural Unions (SACAU), participated in the panel on Monday evening and discussed various risks farmers face and hurdles that need to be overcome.

Mabuza, an agricultural economist, whose research interests span institutional economics of farmers’ organizations, food security and the economics of non-conventional agricultural enterprises, shared some views with CIMMYT about recarbonization. To get this views and watch the interview visit the link Mabuza’s views.

Celebrating 20 Years of Existence: Chronological mapping of the ACT Journey

During its first 20 years of existence, the impact of ACT Network’s activities and influence on agricultural development in Africa has been significant and has contributed immensely to the advancement of sustainable agriculture, livelihoods of farmers and service providers, and national economies. Today ACT is an internationally acknowledged Pan-African institution, with a well-functioning Secretariat in Nairobi, and regional and country focus coordinating Conservation Agriculture Centres of Excellence in different countries in Africa. The existing potential for synergistic collaborations and knowledge sharing for agricultural transformation, in a diverse continent positions ACT as a value-adding partner, coordinating and linking stakeholders to each other, to knowledge and information across Africa and beyond.

Although the great breakthrough for CA in Africa is yet to happen, the impact of the Network is visible across the continent and is recognized. Today CA is becoming generally accepted as a sustainable and regenerative, climate-smart production system, reversing soil erosion and restoring farmland on the brink of severe degradation, enhancing soil health, biodiversity and food safety, ecosystem management, increasing water and nutrient use efficiency, and improving yield stability and food security, reducing poverty and contributing to sustainable development in Africa. Read More.
Climate-Smart Agriculture key to support long-term growth of Near East and North Africa countries

The Near East and North Africa (NENA) region faces numerous common challenges to achieving improved food security, nutrition and inclusive agricultural development. Rapid population growth, increasing urbanization, low growth in food production, as well as scarce and fragile natural resources and the threat of climate change have been compounding the situation.

Climate change is having a significant impact on agricultural production around the region, threatening food security, hampering efforts to eradicate poverty and putting the attainment of Sustainable Development Goals (SDGs) at risk. In light of this, the UN’s Food and Agriculture Organization (FAO) and the Islamic Development Bank (IsDB) are organizing a regional workshop, with the support of the Government of Sudan, to discuss innovative approaches to mitigate the effects of climate change on agriculture and to introduce the climate-smart agriculture approach to countries of the region.

“This is the first workshop on climate-smart agriculture specific to our region. We are grateful for the support provided by the Government of Sudan to host this important workshop. Indeed, Sudan is and will continue to be highly affected by the influence of climate change on agriculture. As such, we welcome its leadership in addressing this topic that is essential for the livelihoods and food security of the people of our region,” said Babagana Ahmadu, FAO Representative in Sudan.

The climate-smart agriculture approach helps to identify appropriate management policies and practices that can improve the productivity and resilience of production systems in the context of a changing climate.

Nations urged to accelerate efforts to wipe out hunger and malnutrition

With rising levels of global hunger putting the goal of ending malnutrition in all its forms by 2030 in serious jeopardy, the Food and Agriculture Organization of the United Nations (FAO) and the International Food Policy Research Institute (IFPRI) have launched a global conference aimed at urgently accelerating efforts to achieve Zero Hunger worldwide.

After decades of impressive reductions in the numbers of undernourished people, hunger is again on the march. According to the latest report published jointly by FAO and four other UN agencies, about 820 million people on the planet are malnourished.

“This is the third consecutive year that progress in ending hunger has stalled and now hunger has actually increased (in 2015, 2016 and 2017). Child stunting is a major problem and nearly two billion still suffer from hidden hunger or a deficiency of important nutrients. This also includes people who are overweight or obese,” said FAO Director-General José Graziano da Silva in a video message to the conference. Read More https://t.co/KNQgsfAXA9
Kenya launches 10-year Climate Smart Agriculture Implementation Framework

The Government of Kenya in collaboration with the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Development Programme (UNDP) have launched the Kenya Climate Smart Agriculture (CSA) Implementation Framework.

The framework was launched through the joint FAO-UNDP Integrating Agriculture in National Adaptation Plans Programme (NAP-Ag). The programme is funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMUB), through its International Climate Initiative (IKI).

This standard-setting document developed with financial support from the NAP-Ag Kenya project will guide implementation of CSA approaches, strategies, practices and technologies in Kenya as envisioned in the national CSA Strategy 2017-2026. Speaking at the launch event in Nairobi, Dr. Gabriel Rugalema, the FAO Representative in Kenya said that climate change had increased the cost of doing business in agriculture and that the CSA Implementation Framework would help achieve the much-needed transformation within the sector.

“A plan is nothing if not implemented; it is only an intention for action. We need to put in time, effort and other resources to implement the document. I therefore urge development partners, private sector, other UN Agencies, civil society and other value chain actors to support the Ministry of Agriculture in implementing the framework,” said Rugalema. “The FAO will continue to work with the Government of Kenya at all levels to ensure that the CSA Implementation Framework is successfully rolled out and implemented.”

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Zambia’s President Lungu calls for tech-based agriculture

President Edgar Lungu says he will lead by example in making the country food secure using modern agriculture technologies which have proved to increase crop yields. President Lungu says practices such as conservation farming increase maize yields from about 1.7 tonnes per hectare to about 10 to 15 tonnes per hectare.

The Head of State said this at his farm located in Chongwe’s Kanakantapa area where he was to spearhead a planting exercise of maize, soya beans, sugar beans and sunflower on a 4-hectare piece of land.

President Edgar Chagwa Lungu says he will engage the Zambia National Farmers Union-ZNFU-District leadership on the possibilities of reaching out to farmers in the area to adopt modern agriculture technologies.

Meanwhile, speaking during the same planting exercise, Pannar Seed Managing Director Samson Nyendwa said conservation agriculture is the best form of farming as it can withstand adverse weather conditions.

Read More

http://t.co/eibDuvrDU1

From left to right: President Edgar Chagwa Lungu, Zambia National Farmers Union (ZNFU) president Jervis Zimba, PANNAR SEED Zambia Limited Country Lead Samson Nyirenda and Conservation Farming Unit Chief Executive Officer Collins Nkatiko during the planting demonstration at President Lungu’s Farm in Kanakantapa area on November 20, 2018. Picture By Salim Henry/State House ©2018

President Edgar Chagwa Lungu (left) drives a tractor during the planting demonstration at his Farm in Kanakantapa area on November 20, 2018. Photo: Salim Henry/State House ©2018
The first ever Rwanda Institute for Conservation Agriculture to prepare the country’s next generation of agriculture leaders and those of the whole East African region opens in July 2019, an official statement revealed in Kigali on Friday. The statement issued by the Rwandan Ministry of Agriculture said the new institute would award Bachelor of Science degree in Conservation Agriculture in a three-year accredited program. It is currently recruiting qualified students to enroll for classes beginning in July 2019. It said that selected students will pursue a Bachelor of Science degree in Conservation Agriculture that is focused on soil conservation, water conservation, One Health, entrepreneurship, leadership, and innovative thinking.

Agriculture is the mainstay of Rwanda’s economy, contributing around a third of economic output and employing the majority of the population which is currently estimated at 11 million. According to the forth Integrated Household Living Conditions Survey (EICV4) published by the country’s Bureau of Statistics, the number of Rwandans living in poverty will be down to just 15 percent by 2024. Read More: https://t.co/1TnwXlKP5N

There are a growing number of examples across Africa where innovative technologies and successful mechanization practices are improving the capacity of farmers and other operators to grow, store, process, transform and transport their crops and other agricultural products. However, despite such progress, concern about the environmental and the social impacts persists.

The improper use of agricultural machinery and equipment can increase pressure on already fragile natural resources and negatively impact employment, which is critical for the future of agriculture and rural areas in Africa. As policymakers promote mechanization to improve efficiency and reduce the drudgery of farming, it is necessary to ensure sustainability is addressed when implementing conservation agriculture and mechanization strategies.

**Transformation of agriculture and food systems towards sustainable development:** Finding the right balance between adopting appropriate technologies and inputs to increase farm yields and avoiding damage to the natural environment is key to the sustainable transformation of agriculture. Mechanization and conservation agriculture have an integral role to play in this process. The Malabo Montpellier Panel’s report, *Mechanized: Transforming Africa’s Agriculture Value Chains*, summarizes the findings of a systemic analysis into how seven countries (Ethiopia, Malawi, Mali, Morocco, Rwanda, Tanzania, Zambia) have increased agricultural mechanization along the entire value chain.

The report’s analysis from one country to another demonstrates how different the agro-ecosystem is from one place to another. There is not one single Africa when it comes to local solutions. The needs, the expectations, the successes and failures very much depend on local and national characteristics, including the nature of ecosystems resources and farming structures, and the institutional setting. There is no magic bullet and no one size fits all solution. However, when locally adapted, agricultural mechanization can offer a multitude of benefits, from reducing the drudgery of farming activities, to improving the efficiency of production and processing, and enhancing the quality of produce. In the case of conservation agriculture, as shared during the Second Africa Congress on Conservation Agriculture during October 2018, the use of appropriate seeding and fertilizer technologies (or planters) in no-till or minimum tillage farming, with crop residue left standing, may lead to increased yields, reduced fertilizer and pesticide application, and less labour and time intensive work. Read More.
Sustainable farming to mitigate climate change

A clear message emerged at the November LIFE ClimAgri workshop at the European Parliament: faced with climate change, current intensive farming practices are unsustainable.

Farmers and agricultural experts at the ClimAgri workshop described a host of challenges facing the industry. Soil loss caused by erosion, more days with high temperatures, and high levels of soil degradation on their land are all factors negatively impacted by climate variations. In addition, conventional tillaging practices, which cause soil layering and prevent water from penetrating the surface, compound many of the problems. The farming industry has to find working methods, which are sustainable for the environment and make financial sense.

Carbon storage is one vital way to mitigate climate change, says Emilio Gonzalez-Sanchez, LIFE ClimAgri project coordinator. “Our role is to break the cycle of carbon by storing it in agricultural soils.” In order to do this, the project is showing how the farming sector can use conservation agriculture to reduce the amount of carbon released from the soil. This activity is known as carbon sequestration.

Climate smart agriculture benefits Zimbabwe smallholder farmers

As Zimbabwe’s population continues to grow and is expected to reach 19.3 million in 2032 as projected by ZimStat, the country will be challenged to meet its food security and nutritional requirements for its people, while also ensuring continued economic growth and sustainable livelihoods in the country where agriculture is the backbone of the economy. However, with climate smart agriculture 140 000 families who benefited from the land reform, both among the rural peasants and their urban counterparts, Zimbabwe will be able to feed itself. Meeting the demand for food by Zimbabwe should be seen in the context of regional climate change. Africa is predicted to be the region that will be most affected by climate change, due to changes in mean temperatures and rainfall, as well as increased variability associated with both.

These changes in climate could impact water availability, growing seasons, flooding and drought, as well as plant and animal diseases and pest patterns among others.

Shifting world agriculture to a “climate-smart” approach will not only help prevent future food security crises, but holds the promise of sparking economic and agricultural renewal in rural areas where hunger and poverty are most prevalent, as argued by Food and Agriculture Organisation (FAO).

Conservation agriculture has other significant benefits, which can act as a real incentive for farmers. Results from ClimAgri demonstrations have shown:

- energy cuts of up to 35%, including less fertiliser and better use of pesticides
- water savings of 30-40%, and reduced energy and labour costs of 50-70%
- over 10% more organic carbon in the soil
- Significant reduction in carbon dioxide emissions, as well as less nitrous oxide

“Farmers see soil degradation in front of their eyes, and have responded with ‘conservation agriculture’,” says Amir Kassam, a member of the UN Food and Agriculture Organization. “It is far more resilient and efficient than anything else we know.” Read more

Read More
In order to diversify the channel of CA information dissemination and spread, ACT has developed and launched ‘Conservation Agriculture App’ available in Google Play. The App is used to disseminate the latest CA news and innovations, events and monthly newsletters on how Conservation Agriculture is improving livelihoods and sustaining the environment.

Conservation Agriculture in South Africa

Conservation Agriculture application and practice in South Africa; A documentary developed by ARC and presented in the 2ACCA; You can watch it on: https://youtu.be/5cH6P1YOnXl

Other Conservation Agriculture Resource links

- The European Conservation Agriculture Federation (ECAF) Database available on: http://www.conservationagriculturedatabase.eu/
- Conservation Agriculture at Cornell University: http://conservationagriculture.mannlib.cornell.edu/ http://www.zotero.org/groups/cornell_conservation_agriculture/items/collectionKey/KGBFX9BX

ACT as a CA knowledge hub, strives to bring to the globe diverse farmers practices and experience on CA. Many farmers and actors in the agricultural sector from different countries appreciate and acknowledge the transformational effects of Conservation Agriculture on agricultural productivity and sustainability. To get more stories and farmers’ perspectives, watch the several videos and clips commissioned and produced by ACT and partners in our YouTube playlists http://www.youtube.com/channel/UCofFL@elSShyQny3xeWR4DA
2019 Events and Opportunities

Vacancy for Conservation Agriculture in Uganda

**Emmanuel International UK** is looking for someone who will take the Conservation Agriculture project forward by running the demonstration plot and piloting a set of trainings to help local farmers choose this method and be good stewards of their resources. More information on this opportunity is available on [Read More](#).

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5th ECHO East Africa Symposium on Sustainable Agriculture and Appropriate Technologies, 12th - 14th February 2019, Arusha, Tanzania

The ECHO Symposium will provide a network and training opportunity for those involved in alleviating hunger and poverty in East Africa. Three mornings of plenary sessions featuring knowledgeable and experienced speakers will be followed by afternoon workshops and discussion groups led by regional agricultural development workers and experts. Topics are currently being discussed for the event.

Potential topics and speakers for the sessions will include presenters from East Africa:

- Conservation Agriculture
- Horticulture
- Innovation in Farming Practices and Techniques
- Best Livestock Practices
- Good Development Practices
- Environmental Concerns

For more information visit: [https://www.echocommunity.org/en/resources/d2ce8e1d-0aa3-42d7-80c3-9adadecbd3aa](https://www.echocommunity.org/en/resources/d2ce8e1d-0aa3-42d7-80c3-9adadecbd3aa)

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**ACT programs, projects and initiatives are firmly anchored towards achieving the 2030 SDGs.**

**SUSTAINABLE DEVELOPMENT GOALS**

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<tr>
<th>Goal 1: End poverty in all its forms everywhere</th>
<th>Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture</th>
<th>Goal 5: Achieve gender equality and empower all women and girls</th>
<th>Goal 13: Take urgent action to combat climate change and its impacts</th>
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**ACT programs, projects and initiatives are firmly anchored towards achieving the 2030 SDGs.**

**ACT Membership**

Membership is voluntary and open to individuals, institutions and corporate organizations committed and active in development and promotion of sustainable agriculture through Conservation Agriculture, Sustainable Agricultural Mechanization and Ecosystem Management in Africa. ACT membership is classified into two categories:

1) Individual membership category
2) Institutional and Corporate membership category

More information on the membership and how to become a member of the Network is available on [http://membership.act-africa.org/](http://membership.act-africa.org/) or register to be a member today online on [http://membership.act-africa.org/membershipregistration/](http://membership.act-africa.org/membershipregistration/)

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To read our past CA Newsletter Issue, Download our CA News app from Google Play store at: [CA News app](#)

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