



Consultative Meeting on a Mechanization Strategy

New models for sustainable agricultural mechanization in sub-Saharan Africa

30th November – 3rd December 2016
Venue (Safari Park Hotel)
Nairobi, Kenya

Background

The large potential for agricultural production has not been realized in sub-Saharan Africa (SSA). One of the key development paradigms for long-term increased agricultural production in SSA is sustainable agricultural mechanization. The benefits are multi-faceted ranging from reducing drudgery, improving the timeliness of agricultural production operations, increasing the efficiency of input use, to facilitating the implementation of the sustainable intensification of production systems, and making agriculture more resilient to increasingly extreme and unpredictable climatic events. Sustainable mechanization can also be applied to the development of improved post-harvest, processing and marketing activities, enabling more timely, and concise operations, with value added to primary products. This can foster the delivery of more nutritious foods and higher value products to final consumers. Moreover, sustainable mechanization has the capacity to contribute to entrepreneurial activities in rural and remote areas, with hire services that can provide much needed mechanization services to those involved in the agri-food sector. In addition, farm-based sustainable mechanization hire services can also contribute to wider development efforts, such as rural-urban transport of goods (and people), rural feeder road construction and maintenance, power for water pumping, provision and distribution of drinking water as well as the collection of bio-waste in rural, peri-urban and urban areas.

Sub-Saharan Africa (SSA) has a history of strong public sector leadership in agricultural mechanization development. Procurement, mechanization services and spare parts supply have mostly been in the realm of the public sector. Over the years, differences in the priorities, perspectives and approaches between the public and private sector towards the development of agricultural mechanization have led to the agricultural mechanization in SSA being largely led and run by the public sector with the private sector playing a minor role. In the long run, this approach was not sustainable as important stakeholders such as private sector agri-machinery suppliers, manufacturers and service providers were neglected.

Initiatives for applying sustainable mechanization to growing more food and other functions and activities designed to increase sustainability of the food system, requires new thinking and perspectives. There is a primary need to see mechanization in a wider and more holistic context. There are numerous cross-cutting and cross-sectorial factors that can contribute to well-functioning, inclusive and sustainable mechanization systems. These need to be ascertained, assessed and elaborated upon and the important experiences and lessons learnt need to be shared with wider audiences that can facilitate and enable a more holistic framework to support the design, formulation and implementation of targeted sustainable mechanization policies.

There is a secondary need to consider mechanization as an important component of private sector development, but with an acceptance that private sector initiatives and markets cannot do the 'job' alone. The public sector still has a role to play in ensuring that a conducive environment exists for the development of sustainable agricultural mechanization in SSA. For example, the public sector needs to play a key role when developing agricultural mechanization strategies that will guide implementation of the planned actions. Furthermore, this will foster new and innovative models of public-private partnerships (PPP) that include the numerous opportunities provided by the shared economy, (via ICT and social media platforms, for example), that could play a key role in the successful development of a regional framework for sustainable mechanization.

There is also the need to consider mechanization as a complex system, intricately tied to food and livelihoods systems and not only to agricultural production. Yet the overarching question, or model, to consider is how sustainable mechanization can have greater impact and positively contribute to the urgent need to align agricultural (production) systems in climate-smart ways that include adaptation and mitigation strategies. This new and PPP-based sustainable mechanization paradigm will contribute to more resilient production systems in order for sub-Saharan Africa to meet food needs and reduce heightened pressures on the natural resource base.

Purpose and objectives

The main purpose of the meeting is to provide a platform to discuss sustainable mechanization development strategy options and, specifically the role of public-private and private-private partnerships. This will be implemented via the exchange of knowledge, perspectives, experiences and lessons learnt in the past while identifying leveraging and entry points for sustainable development of agricultural mechanization in SSA.

The key objectives of the meeting are as follows:

- (i) Providing a platform for public and private sector actors to meet and exchange knowledge, and articulate commitments to improve agriculture mechanization in sub-Saharan Africa for:
 - a. Ascertaining the main needs and constraints for the dissemination and adoption of sustainable mechanization in sub-Saharan Africa
 - b. Defining potentials
 - c. Identifying key factors for developing sustainable agricultural mechanization
 - d. The delineation of holistic sustainable mechanization policy guidelines;
- (ii) Devising new collaborative models for Private-Public and Private-Private Partnerships in order to prepare the ground for potential investments and articulating opportunities, across a range of specific points of agriculture and food value chains, that can create jobs and improve livelihoods with support from the World Bank, FAO, AGRA and the industry and as part of this define:
 - a. Possible pilot/priority countries (5 – 7)
 - b. Funding (immediate funding needs, finance/co-finance options)
 - c. Governance issues
- (iii) Explore and consider the development of a global sustainable mechanization knowledge exchange platform (ICT level) to enable the continuation of consultations;
- (iv) Explore the possibility to establish a Regional Center for sustainable agricultural mechanization in Africa similar to existing centers in Asia (BISA¹, UN/CSAM²) which will help in the research, training and capacity building on technologies and practices related to mechanization along the agrifood value chain specifically for the region in line with the priorities of the existing and future policies.

Meeting Outputs and Deliverables

Outputs

1. The meeting will elaborate on the concept of sustainable mechanization as a development paradigm, the numerous challenges associated with sustainable mechanization and the delineation of policy guidelines, focused at regional and national level, but also and importantly including the local level. The meeting will articulate the needs for more holistic policy-making considering, among the many factors to be addressed, and in particular: south-south cooperation, public and private sector development, social sector development as well as natural environment and climate change themes.
2. The meeting will lead to the identification of viable and adaptable collaborative models among public, private, social and environmental sectors that are accessible, equitable functional and facilitative for all stakeholders in SSA.

¹ Borlaug Institute for South Asia - <http://bisa.org>

² UN Center for Sustainable Agricultural Mechanization for Asia and the Pacific - <http://www.un-csam.org/>

3. The meeting will provide an opportunity for potential joint venture partnerships between domestic and international companies, and intra-partnerships among African based companies.
4. The meeting will also identify key factors that are necessary to enable sustainable mechanization systems to function appropriately and in an inclusive manner. A list of concrete actions will be developed and a clear strategy on how to move forward would be agreed upon.
5. The meeting will furthermore produce a list of potential focal areas in which sustainable mechanization can play a key role in natural environment conservation and usage as well as contribute to substantive climate change adaptation and mitigation strategies.
6. Sustainable mechanization action plan brief: The meeting will attempt to provide a commonly and jointly agreed upon sustainable mechanization action plan brief. Principally targeted at policy-makers and donors it will intend to provide a step-by-step suggested action plan for regional, national and local level development for sustainable mechanization within SSA.
7. Meeting Report: A concise report will be prepared to summarize the meeting. The report will summarize the presentations made during the sessions, focusing on the key lessons learnt and the way forward. The report will also include guidelines and recommendations made during the sessions which will contribute to the overall and intended outcomes of the meeting. Furthermore, the report will highlight collaborative activities which could be developed jointly by the World Bank, European Agricultural Machinery Association (CEMA) and FAO and other partners in SSA including AGRA, ACT and AfricaRice especially on collaborative models among public, private, social and environmental sectors, capacity building and the role of mechanization in climate change adaptation and mitigation strategies.

Participants

The main participants at this meeting will be delegates drawn from SSA countries, including policy-makers, academics, private sector, financial institutions, farmer organizations, and national development organizations (international and regional), and NGOs. Experts from outside the region, especially private companies, will also be invited. In order to enhance the sharing of knowledge, experiences and lessons learnt, focus will be given to inviting participants who are *actively involved* in ongoing initiatives to promote sustainable mechanization in SSA. However, in order to have meaningful discussions, the number of participants will be kept at a manageable level.

Meeting organization

The meeting is a result of a joint effort of a number of organizations, led by the World Bank, CEMA, FAO and AGRA and close collaboration with ACT and AfricaRice. AGRA took the lead in logistical support and organization in Nairobi, Kenya and worked closely with the other partners based in Nairobi such as ACT and AfricaRice.

The meeting is designed to foster interaction, learning, and 'matchmaking' of concrete investment opportunities. With a view to achieving its objectives, the meeting is structured to include plenary

context setting and wrap-up sessions with high level speakers from the public and private sectors, as well as parallel dialogue sessions around priority models more conducive to match-making.

Location and dates

The meeting will be held on the 30th November – 3rd December 2016, in Nairobi, Kenya at the Safari Park Hotel

Meeting sessions

The major meeting themes that will be discussed during the meeting include the following:

- The need for sustainable (and appropriate) mechanization as an essential production input.
- Sustainability and environmental protection (SCPI, Save & Grow)
- Models for providing access to mechanization
- The need for a CSAM-A
- Policy guidelines for the public sector
- Concrete projects based on PPP.

The meeting will be organized around the following sessions:

Meeting Program

Time	Agenda item	Responsibility
<i>Wednesday, 30 November</i>		
p.m	Arrival of participants from overseas	
	Registration	AGRA
	Informal dinner	All
<i>DAY 1 - Thursday, 01 December</i>		
08:30 – 09:00	Arrival and registration	AGRA
	<i>Official Opening</i>	
09:00 – 09:30	Welcome and opening statements	World Bank, FAO
	Welcome Remarks	AGRA, AGRIEVOLUTION (CEMA),
	Key Note Speech by the Cabinet Secretary Ministry of Agriculture Livestock and Fisheries, Republic of Kenya	Facilitator
09:30 – 09:40	Meeting objectives	AGRA
09:40 – 09:55	The concept of Sustainable Agricultural Mechanization	FAO
9:55 – 10:20	Group photo and Coffee/Tea break	All
<i>SESSION 1: Sharing experiences and lessons learnt in promoting SAM</i>		
10.20 – 11.00	Lesson from Asia part 1: Up-scaling sustainable mechanization: India	Dr. Haminder Singh/ Borlaug Institute for South Asia
	Lessons Asia part 2: Sustainable mechanization scenario: China	Prof. Hongwen Li; China Agriculture University
	Lessons from Asia part 3: Bangladesh and Nepal - two-wheel tractor success stories	Scott Justice, CIMMYT
	Discussions and Q&A	All

11:00 – 12:10	<p>Agricultural mechanization lessons from Africa:</p> <ul style="list-style-type: none"> • Agricultural mechanization in Tanzania and East Africa TCP Countries • Agricultural mechanization and promotion of sustainable use of natural resources :A case of CASU project in Zambia • Agricultural machinery cooperatives (CUMA) in Benin • Recommendations for agricultural mechanization development in rice farming systems in Africa • Involvement of the private sector in developing agricultural mechanization in Africa: A case of Rwanda • Experience of UNIDO involvement in developing agricultural mechanization in Africa 	<p>Geoffrey Mrema</p> <p>FAO/CASU</p> <p>FAO/Cooperatives AFRICA Rice</p> <p>AGRA/VOLUNTOUS AGRICON</p> <p>UNIDO</p>
12:10 – 13:00	Moderated discussion: sharing experiences from Asia and Africa: Question and answer time.	AGRA for facilitation
13.00 – 14:00	Lunch break	
SESSION 2: Sharing experiences on Public-Private Partnerships (PPPs)		
14:00 –16:00	The private sector point of view: Lessons from the Global Alliance for Agriculture Equipment Manufacturing Associations (AGRIEVOLUTION)	CEMA
	The public sector point of view	Eng. Jasper Nkanya – Director of Agricultural mechanization
	PPPs Partnership for Agricultural Mechanization in Nigeria	Fed. Government representative
	Moderated discussions and Q&A	All
16.00 – 16:30	Coffee/Tea break	
16:30 – 18:00	Facilitated match making platform: Public-Private partnerships	ACT for facilitation
18:30 – 19:30	Reception	All
DAY 2 - Friday, 2nd December		
09:00 – 09:15	Recap from day 1	FAO/AGRA
SESSION 3: Planning – putting models in to action		
09:15 – 11.30	Strategic working groups – <i>focus on concrete country/models</i>	Facilitated by FAO/AGRA/UNIDO
11:30 – 13.00	Group deliberations results	Facilitator
13.00-14.00	Lunch break	
Session4: Financing investments in agricultural mechanization in Africa		
14:00-14:30	<p>Panel Discussion: Financing investment in agricultural mechanization in Africa: Opportunities and challenges</p> <ul style="list-style-type: none"> • Representative(s) of the banking institutions • Views from the farming/private sector community • Views from the public sector (governments) <p>Views from the development organizations</p>	Facilitator
14:30-15.10	Facilitated discussion and Q&A	Facilitator
15.10-15.40-15.40	. The way forward	FAO, World Bank, AGRA, ACT
15.40 - 15.55	Coffee/Tea break	
Session5: Session4: A Sustainable Mechanization Strategy for Africa		
15:55 - 16:15	<ul style="list-style-type: none"> • Framework for Sustainable Mechanization for Africa 	FAO
16:15 – 16.30	Discussion and Q&A	Facilitator
16.30 – 17:30	Facilitated policy formulation working groups to discuss key aspects of the SAM framework for Africa.	Facilitator

17:30 - 17:45	The way forward	FAO/World Bank /AGRA
17:45 - 18:00	Concluding remarks	FAO
DAY 3: Saturday, 3rd December		
Session 6: Field trip options		
Option 1	FAO-Kenya/EU: Farm business and conservation agriculture	FAO Kenya
Option 2	Mechanization hubs	KENDAT
Option 3	GRIMME: Potato initiative	CEMA
Option 4	Session Wheat Farm: Precision farming & small-scale entrepreneurs in hire services	ACT
Option 5	Manufacturers and equipment suppliers: AGCO (Massey-Fergusson)/ John Deere Co. Ltd	CEMA

Field visit

The meeting includes a field visit on 3rd December to successful mechanization service providers as well as other major stakeholders: farmers, machinery dealers, manufacturers, repair and maintenance facilities and possibly also rural finance institutions. The main purpose of the proposed field visit is to facilitate enhanced and wider understanding of the mechanization system in SSA focusing on the key theme of the meeting. Participants will visit some ongoing field activities on mechanization to learn first-hand the opportunities and challenges. It is expected the learning experience gained from the field visit and the interest that will be generated will help to further promote the role of mechanization in SSA.

Facilitation

Based on the background of the expected participants and the expected outcomes of the meeting, the Secretariat has identified and engaged a dynamic and experienced consultant based in Africa and with vast knowledge of agricultural development in the continent to facilitate the meeting and provide guidance on the concept and strategy development and teambuilding.

Registration and participation costs

The participation to this meeting will be by invitation and no registration fees will be charged. Costs of travel and subsistence of a limited number of participants from the SSA will be covered by the organizers. A number of places will also be reserved for stakeholders who wish to participate with their own resources. Such participants may express their interest directly to the Organizing team in Nairobi.

For further information contact:

Alliance for a Green Revolution in Africa (AGRA)
 West End Towers, 4th Floor
 Kanjata Road, off Muthangari Drive, Off Waiyaki Way
 PO Box 66773, Westlands 00800, Nairobi
 Tel: +254 (20) 3675 000 / +254 (703) 033 000; Fax: +254 (20) 3675 401
 Web: www.agra.org
 Email: info@agra.org

African Conservation Tillage Network (ACT)
PO Box 10375 - 00100 Nairobi, Kenya.
KARI - NARL, Waiyaki Way, Nairobi, Kenya
Tel: +254 20 8076064, Fax: +254 0412013604
info@act-africa.org
www-act-africa.org

Food and Agriculture Organization of the United Nations (FAO/UN)
Plant Production and Protection Division
Viale delle Terme di Caracalla
001053, Rome, Italy
Telephone: +39-06-57052612
E-mail: sustainable-mechanization@fao.org;
<http://www.fao.org/agriculture/crops/thematic-sitemap/theme/spi/agricultural-mechanization/agricultural-mechanization-home/en/>

World Bank Group
Agriculture Global Practice
1818 H Street - NW
Tel: +1 202-458-5568; + 1 202-473-4967