



AFRICAN CONSERVATION TILLAGE NETWORK

Partnering for improved food security, a better environment and regional development

May 2013 – Updates and Hottest Issues

1. South-South Trip To India: *Hands on Training -cum-Study Tour on "Farm Mechanization for African Stakeholders"*

The two weeks training-cum-study tour on Farm Mechanization for African Stakeholders was carried out under the auspices of The Farm Mechanization & Conservation Agriculture for Sustainable Intensification (FACASI) project with the objective to identify opportunities to transfer Indian technologies and Indian expertise to Africa.

The delegation comprises participants sampled from private sector players (importers, manufacturers); researchers; academia; and non-governmental organizations – all stakeholders to the FACASI project. These included participants from Ethiopia (4), Kenya (4), Tanzania (4), Zimbabwe (3), Regional (ACT), and the CIMMYT FACASI project Coordinator. Highlights of the trip are:



Participants to the Indian training-cum-study tour with CIAE Bhopal hosts

- The Indian Universities have been effectively linking manufacturers, importers and farmers; acting as hubs for technology development.
- India has a manufacturers' association with a political voice which can/does influence policies in favour of the industry.
- Developed technologies are effectively extended to farmers through scaling out models including farmers' cooperatives sometimes specialised in mechanised equipment hire services.
- Research focus - to concentrated action centres/zones and areas of excellence such as soil sodicity /salinity - is a key driver to the successful introduction of sustainable agriculture.
- Government support to farming is very strong in India. Examples include: free electricity (for pumping irrigation water in the 2 states); VAT exempt on machinery; subsidies on mechanization and irrigation equipment; and government purchase of farmers' produce at profitable prices.
- It is argued that that the Indian Green Revolution took place only in the Punjab and Haryana States! What does Africa have to learn from this knowledge?
- ICAR is desirous to further the south-south collaboration for the longer-term mechanization of farming in Africa. The leadership of CIMMYT & ACIAR through FACASI comes at an opportune time.

More info+: Highlights of South-South Trip Report to India; available at:

http://act-africa.org/file/20130612_lessons_learned_facasi_trip_to_india_may_2013.pdf

Indian Council for Agricultural Research website: <http://www.icar.org.in/en/node/6044>

2. What did the ACT Director Prof. Dr Pablo A. Titttonell say during his Chair inaugural lecture at Wageningen University?

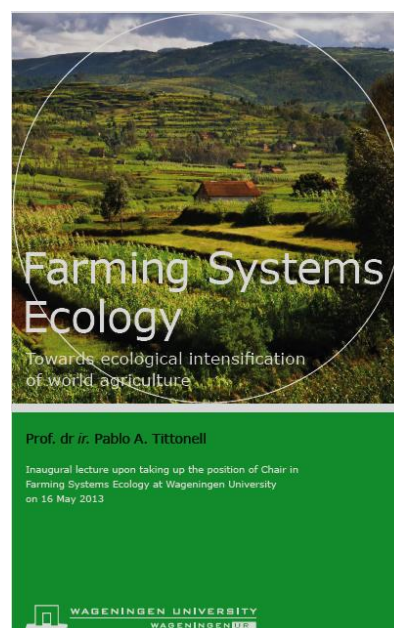
Can conventional agriculture feed the world population projected to be 9 billion people by 2050? This is obviously a rhetorical question; because we know that **the answer is no**. Producing food for such a populous with conventional agriculture will exhaust our global oil reserves in about 12 years estimated to be 1,481,526 Million barrels given the yearly needed estimated of about ca.113,000 Million barrels of oil.

Reports indicate that out of 870 million people suffering from chronic undernourishment in 2010-2012 the vast majority (852 million) live in developing countries. **Yet, for the first time in human history, obesity outweighs hunger**, the current number of overweight people in the world is estimated at 1300 million (WHO Global InfoBase, 2012).

Adopting contemporary sustainable agricultural systems makes it **possible to harvest a crop from a degraded soil in the first year of rehabilitation**. In a Pan-African project funded by the European Union and led by the African Conservation Tillage Network, we are studying and at the same time promoting these systems among farmers in the Sahel through innovation platforms (<http://abaco.act-africa.org/>).

I am convinced that agriculture needs **knowledge-intensive management systems** to increase yields and access to food and incomes **in the South**, and **knowledge-intensive design** to reduce the dependence on external (fossil fuel) inputs **in the North**. **The model of intensification per unit area or per animal, which is deeply rooted in the mind of scientists from the green revolution generation, is now obsolete.**

The private sector will never invest in process-based technologies, unless there is a product or a service that could be sold with them, but majorly on **new input-based technologies**. To compensate for such trends the **public sector** needs to invest in the development of **process technologies**, in integrated systems research, in holistic approaches. Our current engagement with the Farming Systems Design community, with the Scientific Society for Agro-ecology in Latin America, with the African Conservation Tillage Network and with the International Federation of Organic Agriculture Movements (IFOAM) **opens new opportunities for continuous learning and impact.**



More info+: The lecture is available at: [http://www.act-africa.org/file/14435%20-%20BC%20-%20BC%20Oratie%20Pablo%20Titttonell 03 LR.pdf](http://www.act-africa.org/file/14435%20-%20BC%20-%20BC%20Oratie%20Pablo%20Titttonell%2003%20LR.pdf)

3. ACT hosts water productivity and climatic risks; soil rehabilitation & integrated fertility management seminar

From 13th to 17th May 2013, ACT hosted the water productivity, climatic risks (theme 1), soil rehabilitation and integrated soil fertility (theme 2) seminar held at the SG Resort Arusha. Organised under the ABACO project, the meeting was attended by both theme leaders; researchers and extension workers involved in implementation of the project in East and Southern Africa sites. Participants discussed the concepts of water productivity, climate risks,

soil rehabilitation, ISFM and shared the results so far achieved across sites. Research protocols were also harmonised for all the sites, new participants were trained on installation and calibration of the Neutron probe for soil moisture measurements. Experts from University of Zimbabwe, Wageningen University, and National Research Institutions (Kenya and Tanzania) trained the participants. Participants did also have the opportunity to visit farmers and groups implementing CA around Arusha, to learn and share experiences. The participants



Workshop's participants

developed an action plan for the soil moisture measurements using the neutron probes prior to closure of the workshop by the ACT Executive Secretary. He stressed the urgent need to develop the scientific evidence as to what tillage, soil cover and biodiversity works for which circumstances in the adaptation and mitigation of climate change and make that information accessible to farmers and policy makers.



More info+: Contact info@act-africa.org

4. KARI Launches the Kenya Soil Health Consortium (KSHC)

The Launch meeting was held on 4th June 2013 at the Kenya Agricultural Research Institute (KARI) - Kabete and officially launched by the KARI Director, Dr. E. A. Mukisira. The Director



indicated that it was a great honour to host the consortium project at KARI. The project will be implemented by KARI and IPNI in collaboration with all the relevant stakeholders as members of the technical committee. The consortium is funded by the Bill and Melinda Gates Foundation through AGRA and IPNI. The consortium intends to harmonise and document available ISFM technologies and innovations and package them into knowledge and information products that can translate into policies to help improve food production in ESA. ACT is a member of the consortium.



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5. Grow more, with less, and earn more CA CIMMYT

Some farmers in Bangladesh have increased their production of maize, wheat, and mungbean during the dry season despite reduced availability of irrigation water and rising labour costs. Key to their success has been the conservation of soil moisture, the growing of shorter duration varieties and the use of machinery that sows crops earlier without fully tilling the land.

More info+: Watch the 20 min video at: <http://www.accessagriculture.org/node/949/en>

6. Upcoming Events

➤ Conservation Agriculture: Achieving Impact in Africa. Workshop Scheduled for Addis Ababa Ethiopia, 8th and 9th July 2013

The Australia Awards in collaboration with the University of Queensland, UniQuest Pty Ltd, have organised a two days' workshop to be hosted by the Ethiopian Institute of Agricultural Research (EIAR) on 8th and 9th July, 2013. The workshop will be attended by international experts who will provide a critical analysis of Conservation Agriculture in various African contexts. ACT will present a keynote "Overview of ACT and CA in Africa".

➤ The 4th International Farming Systems Design Symposium is to be held at Lanzhou city Gansu Province, the People's Republic of China, August 19-22, 2013.

Theme: Sustainable Intensification of Agriculture: Systems Research *Helping to Meet the Needs and Managing the Trade-offs of A Challenging World*

To register for the symposium, visit the website: www.fsd2013.com

➤ Africa Congress on Conservation Agriculture (ACCA-1), 18-21 March 2014, Lusaka Zambia. **For more information** contact: info@act-africa.org. **Registration:** coming soon.

➤ 6th World Congress of Conservation Agriculture to be held June 22-26, 2014, in Winnipeg, Manitoba, Canada.

Attend the 6th World Congress on Conservation Agriculture (WCCA) to learn, discuss and network about Soil Health and Wallet Wealth. Agricultural production systems are not sustainable unless they are profitable, and Conservation Agriculture (CA) holds the key to building and maintaining healthy soils and profitable farming systems.

Themes:

- i. Conservation Agriculture and Sustainable Intensification
- ii. Conservation Agriculture and Climate Change
- iii. Conservation Agriculture and Innovative Adoption.

To register for the conference, visit the website <https://www.ctic.org/registration>

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Conservation Agriculture for Improved Livelihoods and a Better Environment

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