

Trip Report SO2.1 – Mozambique, March 7-10, 2016

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Objectives:

- ◆ Learn about current and emerging program/project activities of USAID, AGRA, FAO, Ministry of Agriculture
- ◆ Share information about our project's current and emerging activities, and expected outputs
- ◆ Identify common interests and explore potential bases for future collaboration

Meetings:

7 March 2016 (90m) – **National Directorate of Agricultural Extension (DNEA)**, Ministry of Agriculture and Food Security: Inácio T. Nhancale, Head of Technical Assistance Department, it.nhancale@gmail.com, +258-82 39 13 530, +258 84 49 13 530

- ◆ Ministry of Agriculture and Food Security has these sectors: Extension (1,300 agents), Agribusiness, Training, Technologies (conservation agriculture, post-harvest, etc.), and Communication
- ◆ Extension 'master plan' now exists and public service 'agricultural extension career'
- ◆ Adult education principles employed
- ◆ Action Plan includes M&E system
- ◆ PRA → Demonstration fields, on-farm trials, and field days – all in collaboration with researchers
- ◆ Extension is working with Aga Khan Foundation on developing videos for ag practices
- ◆ PRONEA (National Master Plan for Agricultural Extension) in 42 districts with the PSP (PRONEA Support Project). Model is to train the trainers at national level, who then train the supervisors at provincial level. At the district level, extension officers use farmer field schools.
- ◆ PITTA (Integrated Program of Agricultural Technology Transfer) – use demonstration plots, managed by extension officers. Five farmers per PITTA demo plot in which they implement technologies in demo plots together, and then take back to their own plots. Also use field days for technology demonstration.
- ◆ Soil analyses – continuing constraint. IFDC and FAO work on vouchers for fertilizer blends produced in MozFert factory in Beira. Mozfert conducts analysis of soils to determine appropriate blend. They are developing mapping of soil at a refined level. The lack of input market in Gurúè is a recognized problem.
- ◆ Brazilian support for a seed project based on collecting and conserving landraces 'semente crioula' based on EMBRAPA experience. Seed strategy has been developed but certified seed not getting out to producers. Currently MASA is working in Maputo and Niassa training extension officers on seed production and conservation, trying to capitalize on local and improved seed. Nhancale firmly believes that extension workers (not researchers) are the ones training to work with adult education with farmers.
- ◆ There are efforts to promote conservation agriculture based on new Action Plan which was recently approved. New guides needed for extension on it.
- ◆ The government recently approved the job classification of Agriculture Extension as a career path.
- ◆ Two new centers that reflect desire to have integrated technology transfer centers under the 5 year agric. strategy: for clay soils at Boane (Chinese supported construction of training, lab, and office facilities there) and for sandy soils at Marracuene (training and demonstration centers with various crops and livestock) (Korean support for this one).
- ◆ Voucher program (FAO w/ EU funding) for fertilizer 12:24:12, urea & 30 kg seed (pigeon pea)

- ♦ CLUSA, which emphasized farmer organizational development, has a soil specialist in Gurúè
- ♦ Discussed small scale irrigation
- ♦ Local variety ('gret') is preferred, pay 60 Mt/kg vs. 45 MT/kg for improved varieties
- ♦ Eng. Danza is the ag. extensionist specialized on legumes and he has been working with Manuel Amame at IIAM. Fichas Técnicas (Field Guides) are being developed by extension. There is a new agreement with University of Vicosa on communications and videos. This is cooperation with ABC (Brazilian cooperation agency) and PROSAVANA. Key issue is demonstrating the role of soils in providing a service to farmers.

8 March 2016 (90m) – **USAID-Mozambique: Isabel Alves**, Project Activity Manager; ialves@usaid.gov, +258 82 444 8550; **Paula Pimentel**, Senior Agricultural Research & Technology Transfer Advisor, ppimentel@usaid.gov, +258-82-310-6260; **Ken Hasson**, Agricultural Development Officer, khasson@usaid.gov, +258 82 310 6250.

- ♦ SEMEAR (Better Seeds for Better Agriculture) Funded research by CIAT (beans), IITA (soy, cowpea, sesame), ICRISAT (groundnut, pigeon pea) and IIAM – new varieties have been released
- ♦ Funded IFDC for work on soil maps, and establish/strengthen companies which make blended fertilizers
- ♦ Interested in: *increased success (scaling out and up) in farmers' adoption of demonstration plot management practices and technologies*
- ♦ COPASA project (Improving the Seed System): FINTRAC/TNS – PPP program involving 32 medium scale farmers being training as soybean seed producers with mechanization the next investment. Includes collaboration with Phoenix Seeds. (We had brief sidebar meeting with TechnoServe's Jake Walter; linking to appropriate common bean and pigeon pea seed desired, as they diversify these farmers.)
- ♦ Opportunity International – input sales businesses
- ♦ SOILDOC – Earth Institute (Columbia Univ.) backpack soil testing → custom fertilizer specification
- ♦ IITA (Steve Boahen) – based in Nampula, focused mainly on soybean but with other legumes as well

8 March 2016 (90m) – **AGRA- Moçambique: Paulo Mole**, Country Technical Head; pmole@agra.org; +258 84 319 5490

- ♦ Scaling up seed production (SEMEAR) and use, cleaning and other technologies. EGS for aspects related to certified seeds. Looking at overall value chain development for seed systems. Noted lack of public production of foundation seed for private companies to multiply. No capacity for monitoring and inspection, so looking at private sector capacity development. Looking at harmonization of regional seed systems. Scaling up of seed systems: supporting public sector production of foundation seed.
- ♦ Integrated approach: seed systems, soil health, markets and income, policy
- ♦ Maize, soya, cassava, rice – in Beira Corridor and Zambeze valley
- ♦ Soil health and policy:
 - Regulations, esp. vis. fertilizer (incl. production from energy resources being exported)
 - Fertilizer National Platform and Seed Systems National Platform (each with Policy Action Node)
 - Transportation and distribution
- ♦ Soil mapping (ongoing) (in several districts) – and crop growing recommendations
- ♦ Links btw. indigenous/local knowledge and scientist-derived knowledge are of interest
- ♦ Developing a concept (note) re: extension, esp. role of youth in ICTs (e.g., Digital Green)
- ♦ Interested in: *increased success (scaling out and up) in farmers' adoption of demonstration plot management practices and technologies*
- ♦ Gurúè – IDRC (research on soy vis. nutrition) w/ TechnoServe

- ◆ Farmer Resource Centers (e.g., Tete province)
- ◆ Africa Enterprise Challenge Fund → renewable energy & technology adaptation to climate change
- ◆ Interested in: SAWBO promotional materials
- ◆ Soil analysis: we discussed problems of lack of access to soils lab in Nampula and the issues with quality soil analysis. There is the possibility of a soils lab being established for the Beira Corridor, but for now it is just the MozFert lab, with some concerns about accuracy of analysis.
- ◆ African Enterprise Challenge Fund was mentioned. Julio Garrido Mirapeix (previously based in Maputo) is in charge of the Mozambique REACT Window under the African Enterprise Challenge Fund, related to private enterprise innovation investments.

9 March 2016 - (120m) – **FAO-Mozambique: *Eugenio Macamo*; eugenio.macamo@fao.org; *Felisberto Dimande***, Seed Specialist, felisberto.dimande@fao.org, +258 82 3166 350; ***Alberto De Grazia***, Technical Advisor – Voucher Program, alberto.digrazia@fao.org, +258 82 334 9493, 82 199 7380

- ◆ MDG project (2014+) has six components: seed systems, Farmer Field Schools, e-vouchers, post-harvest technologies, poultry vaccination, and home gardens for improved nutrition
- ◆ Seed systems: maize, cowpea, beans – then added rice and sorghum (in some districts); districts include Gurúè and Alto Molocué; \$/IIAM include seed multiplication at research station in Gurúè. Includes possible seed production in Gurúè of iron and zinc bio-fortified beans.
- ◆ FFS supported 1-2 agricultural seasons; then, guided to form farmers organizations
- ◆ E-voucher: for three seasons; focus maize + beans; includes 4 kg of bean seed; cost sharing: subsistence farmer (MT 1400) pays 30%, emerging farmer (MT 5200) pays 50%
- ◆ Seed replication by growers associations and seed companies, with some private sector seed demonstration plots
- ◆ World Food Program covers market aspects
- ◆ FAO in Alto Molocué = Omar (82-730-5335, 84-773-0496)

Follow up:

- ◆ TechnoServe/CLUSA - check with office in Gurúè, as there are overlapping areas.
- ◆ IITA in Nampula – check with them for possible coordination.
- ◆ Beira blended fertilizer factory (via IFDC contacts)
- ◆ FAO & AGEMA in Quelimane: Working with farmer field schools and farmer organizations. AGEMA is private sector and this is outsourcing trial for extension.
- ◆ Using Invinha local community radio for tech transfer programs. IIAM is developing radio program scripts in their Radio Programs office.
- ◆ Prior to departure, we learned that personnel in the JICA-supported soils lab in Nampula consented to analyzing the samples from Gurúè. Ricardo will follow up with the soil samples collected in Feb. 2016. Given the loss of production/yield data in the 2015 rainy season experiment, those samples will not be sent for testing.
- ◆ July-August - soil sampling and work with farmers, using geocoding and farmer ID to link soils to each farmer's classification.