Protecting and improving productivity of fragile landscapes in Ethiopia

Increasing agricultural productivity while improving the ecosystem and managing the fragile landscape around Logo Haik (Lake Haik) of the Amhara region in Ethiopia was the key issue discussed at a workshop that brought together policy makers, researchers, development partners and academic institutions in the region.

Soil erosion and water scarcity in the upstream areas, siltation, and deterioration of water quality downstream are the major issues.

Speakers highlighted the need for initiating a new joint watershed management initiative in the degraded landscape around Logo Haik, a crater lake. This initiative is expected to jointly develop strategies to enhance agricultural productivity (mainly sorghum) and food security upstream, while protecting the ecosystems of Logo Haik downstream through integrated watershed management. Developing a learning site for intensification of dryland sorghum-based systems in Ethiopia is another important objective.

Experiences in developing Yewol watershed in the same region and mobilizing communities and local partners to develop self-sustaining systems that depend on local resources were shared by Dr Asmare Dejen, Vice President for Research and Community Service, Wollo University and Dr Tilahun Amede Wondifraw, Principal Scientist - Natural Resources/Systems Agronomy (Resilient Dryland Systems), ICRISAT. The challenges in sustaining the project initiatives and the need to fit into the demands and priorities of the local farming community were highlighted by Mr Debebe Admassu, Head of the Zonal Bureau of Agriculture.

The district office of agriculture and environment will take the lead in project implementation, while Wollo University and ICRISAT will provide technologies, organize training events and render overall guidance for implementation.

During the closing session, Dr Abate Getahun, President of Wollo University, presented a memento to Dr Amede for the excellent partnership, continued guidance and technical support that Wollo University and the region as a whole have been receiving from ICRISAT.

The workshop entitled ‘Sustainable management of Logo Haik watershed for agricultural intensification and improved ecosystems’ was held on 19-20 May at Desse town, Ethiopia. Wollo University, Sirinka Agricultural Research Centre and ICRISAT jointly organized the workshop.
Agribusiness ventures connect with investors

Bringing together investors and agribusiness entrepreneurs on a common platform, the Agri-Business Incubation (ABI) program of the ICRISAT Agribusiness and Innovation Platform, provided a forum for innovators to present their business ideas for funding support. Five agribusiness ventures focussing on ready-to-eat foods, farm mechanization through drone technology, meat franchises, organic e-retailing and fruit preservation technology were identified by investors for funding and business incubation support.

Over 32 entries (see box for categories) were found eligible and 10 business ideas were shortlisted for presentation to the panel of investors which had representatives from Omnivore Partners, Angel Investor-Malaxmi, Caspian Impact Investment, UnLtd Hyderabad, Villgro Innovations Foundation and CSS Tech Energy Ltd.

“Apart from investment, we are looking for incubation, mentoring and marketing support. ABI can help us source quality grains and legumes from the farmers directly at competitive prices,” said Ms Shruti Krishnakumar of Chennai Chef, marketers of millet and legume-based foods.

The camp was organized on 12 June. The selected entrepreneurs would receive funding support from investors and Government of India’s Technology Development Board’s seed-fund.

Enhancing capacity of extension officers in Kenyan drylands

To bridge the gap between research and information dissemination to smallholder farmers, extension officers were trained on integrated agronomic management of chickpea, pigeonpea, groundnut, sorghum and finger millet for enhanced yields. The training was held from 9-12 June at Egerton University’s Dryland Research Training and Ecotourism Centre, Chemerron, located in the dryland county of Baringo. The training brought together agricultural executives and 45 agricultural extension officers (37 male and eight female) from eight counties. Eleven students from Egerton University, Bukuru Agricultural College, Kitale Technical Training Institute and Baraton College also attended. The training was facilitated by ICRISAT, Egerton University and KALRO-Perkerra.

Fruitful partnership between Egerton University and ICRISAT

Previous collaborations between Egerton University and ICRISAT through various projects led to release and commercialization of several chickpea, finger millet, pigeonpea, groundnut and sorghum varieties which are climate resilient and important for food and nutritional security. It has led to increased adoption and expansion of dryland crops in several counties of Rift Valley, Kenya.

For the March-May 2015 planting season, these counties received seed of assorted crops following requests by the Governors of the Elgeyo Marakwet and Baringo county governments. Each county received over 2,000 kg of the seed for multiplication.
New initiatives in pigeonpea and groundnut were launched in Odisha to address gaps in seed production, soil and nutrient management, pest management, and processing and marketing.

The projects will be farmer driven, farmer implemented and farmer owned. The major components of the two projects include: evaluate, identify, promote improved variety/hybrids of pigeonpea and groundnut; develop seed system at village level to achieve self-sustenance of farmer preferred varieties; build capacities of farmers and self-help groups; and link production with processing and marketing in groundnut.

The project will address major concerns about the non-availability of quality seeds at state level, reduced rainfall and poor soil nutrition.

At the Annual Planning and Launch meeting Mr Manoranjan, Deputy Director of Agriculture, Government of Odisha, shared that there was a major gap in the requirement and availability of certified seeds for pigeonpea, chickpea and groundnut. The government of Odisha has signed a MOU with ICRISAT and National Seeds Corporation (NSC) in order to bridge this gap within a 3 year period.

Mr Saroj Das, Deputy Director of Agriculture (Pulses), Government of Odisha, stated the need for good coordination between departments as well as among the project partners and the need to incorporate a strong monitoring component within the project to help it a success.

The two new projects are:

- ‘Scaling-up of Improved Groundnut Varieties in Various Cropping Systems of Smallholder Farmers in Odisha’ (to be implemented during 2015-2019).
- Extension of an earlier project ‘Introduction and Expansion of Improved Pigeonpea (Arhar) Production Technology in Rain-fed Upland Ecosystems in Odisha’ to new districts in the state (to be implemented during 2015-2019).

The Annual Planning and Launch meeting of the two projects was held on 17 June at ICRISAT-India. Officials from the Department of Agriculture, Government of Odisha and ICRISAT scientists shared their learnings from the earlier project and presented plans for the new projects.

Partners: Government of Odisha, Orissa University of Agriculture & Technology, ICRISAT, seed organizations, farmer self-help groups.

Investor: Government of Odisha (under the Rashtriya Krishi Vikas Yojana)

CGIAR Research Program: Grain Legumes

For more information on pigeonpea visit: http://exploreit.icrisat.org/page/pigeonpea/687

For more information on groundnut visit: http://exploreit.icrisat.org/page/groundnut/686

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Announcements

CGIAR’s new strategy and research programs: Answering to poverty, health and climate change

Blog by Dr Frank Rijsberman, CEO, CGIAR consortium.

Funding opportunity: From the USAID Feed the Future Sustainable Intensification Innovation Lab, managed by Kansas State University.

Concept notes due: July 10, 2015.

For more information: http://www.k-state.edu/siil/opportunities
Condolences

Former ICRISAT Governing Board member, Dr Claude Charreau passed away on 10 June.

He was born in Mondoubleau, France, on 7 November 1928. He was involved in agricultural research and had vast experience in West Africa as he started his career in Senegal in 1950. He worked at Office de la Recherche Scientifique et Technique d’Outre-Mer (ORSTOM) and later joined Institut de Recherches Agronomiques Tropicales et des cultures vivrières (IRAT) based in Bambeay, Senegal. He also was a visiting professor at Cornell University. In the mid-70s he served as ICRISAT Director for West and Central Africa in Niamey, Niger. He was instrumental in facilitating and establishing a strong collaboration between ICRISAT and French organizations. Among his major contributions to ICRISAT, was the establishment of the sorghum program in Mali with six French scientists based in Bamako and fully funded by the French Government.

He served as ICRISAT Governing Board member from 1984-1990. As a board member, he continued to be actively involved in supporting West African programs and helped expand research activities in the region.

Team ICRISAT expresses its deepest condolences to Ms Suze Charreau and the entire family at this time of grief.

Readers’ Comments

Good to see the new project proposal on sweet sorghum production for bioethanol and food. IIMR (DSR) has done pioneering work on promotion of sweet sorghum for use as bioethanol involving industry and research organizations. The first sweet sorghum hybrid CSH 22SS is the product from IIMR. This is excellent feedstock.

The project aimed mainly aimed at producing sweet sorghum in marginal lands. Experience at IIMR shows that the crop stalk and grain yields are far less when grown in poor soils with no supplementary irrigation. There is a need to account the cost of irrigation, when grown during off season under present dwindling ground water tables in many areas. Additionally, the insect pest which is serious in sweet sorghum than grain sorghum needs to be taken into account.

The past experience of IIMR research should be considered when pushing the crop for commercialization. The author has experience in growing the crop at several biofuel industrial sites across the country.

– Dr SS Rao, Principal Scientist (Crop Physiology), ICAR- Indian Institute of Millets Research, Hyderabad, India

I was glad to go through your 5 June issue of Happenings. My compliments to Dr Bergvinson, Director General, and all of you for a great celebration of the World Environment Day by taking stock of the issues related to ‘Environmental Sustainability’ in different countries.

I feel that the findings made by ICRISAT in India, Laos, Vietnam and Nepal and reported in this issue have a great practical utility. The size of land holding has been decreasing from year to year due to an increase in the population.

Accordingly, the small and marginal farmers should ideally grow an optimal risk resilient inter-cropping system for maximizing the resource use efficiency/energy use efficiency/production efficiency and monetary returns without degrading the environment.

Apart from the hybrids/ improved seeds of crops, efficient cost-effective implements for different agricultural operations would greatly benefit the resource poor small and marginal farmers in rainfed regions.

The energy use efficiency (comprising of different inputs and processes) would ensure a higher environmental sustainability in the long run. There is a great need that the different modifications being attempted by researchers while developing agricultural technologies should ensure this aspect.

– Dr GR Maruthi Sankar, Principal Scientist (Agricultural Statistics), AICRP for Central Research Institute for Dryland Agriculture