Breeding climate-smart crops top priority for Indian state of Karnataka

Breeding climate-smart sorghum, finger millet, chickpea, pigeonpea and groundnut crops figure high on the agenda of the Government of Karnataka (GoK).

Mr Krishna Byre Gowda, Minister of Agriculture, GoK, said that Karnataka will soon sign an agreement with ICRISAT and the National Centre for Biological Sciences, Bengaluru, India, to produce non-GM varieties of the above five crops. A consortium would be formed for this purpose and will be funded by GoK.

With 2015 being the International Year of Soils, he said that the upcoming Bhoochetana Plus program would lay great emphasis on preventing land degradation and effective use of water resources. “Our soils are not just thirsty, they are hungry too,” he said referring to the micronutrient deficiencies that the soil tests have revealed during the first phase of the Bhoochetana project initiated by ICRISAT. He said the government aims to issue Soil Health Cards to all farmers in Karnataka by 2016-17. Mr Byre Gowda said Bhoochetana Plus was a multidisciplinary, multi-departmental approach that will utilize the expertise of eight international CGIAR organizations – possibly the largest number of CGIAR Centers working together on one project. The goal, he said, is to make agriculture more remunerative and sustainable without adversely impacting the environment. Farmers in Karnataka are already achieving a return of Rs 15 (US$ 0.24) for every Rs 3 (US$ 0.05) invested.

“Bridging the large yield gap between potential productivity and crop yields in rainfed areas was a primary concern,” said Mr BK Dharmarajan, Director of Agriculture, GoK. He said that the government...
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was keen on adopting a holistic approach – looking beyond increasing yields and productivity, to improving the livelihoods of farmers. He said that a larger number of farmers need to be involved in the new Bhoochetana program.

Mr HG Shivananda Murthy, Commissioner, Karnataka Watershed Development Department, said that technology should help farmers utilize natural resources in a better way and preserve them for future generations. He stressed on the need for organic farming and preventing groundwater levels from plummeting.

Bhoochetana Plus is a multidisciplinary, multi-departmental approach that will utilize the expertise of eight international CGIAR organizations – possibly the largest number of CGIAR Centers working together on one project.

Give us more sorghum and millet demand consumers in Karnataka

To boost the demand for millets and sorghum the Government of Karnataka is providing millets and sorghum through the Public Distribution System (PDS) at subsidized rates. The response has been very positive and “The demand for sorghum and millet is far exceeding the supply,” said Mr Krishna Byre Gowda, Minister of Agriculture, GoK.

The GoK initiative has a three-fold benefit:

- It benefits farmers cultivating these grains: Seventy per cent of cultivable land in Karnataka is rainfed. Millets and sorghum are best suited for cultivation in this region.
- It improves the health and nutrition of the consumer: Millets are highly nutritious and contain high levels of iron, zinc, calcium, micronutrients, etc. Read more about the health benefits: http://www.icrisat.org/ICRISAT_files/Smart_Food_Folded.pdf
- These crops have good fodder value: While 60% of the income of these crops is from grains, the rest is from fodder. This not only benefits the farmer but also helps meet the fodder shortage in the state.

The PDS scheme of the Government of India provides staples such as rice, wheat, sugar, etc. at subsidized rates to people living in poverty. It is an important food safety net for millions of Indians.

Going by the public response, this year, GoK has plans to scale up the initiative to more districts in the state.

For more information on finger millet, visit: http://exploreit.icrisat.org/page/small_millets/875

For more information on sorghum, visit: http://exploreit.icrisat.org/page/sorghum/882
CORAF and partners discuss success and challenges of Innovation Platforms

With Innovation Platforms (IPs) being seen as a key vehicle for agriculture development, the success and challenges of IPs in supporting smallholder farmers in West and Central Africa (WCA) were the subjects of open debate and discussion recently. More than 200 participants participated in the deliberations.

The main outcomes of the CORAF/WECARD workshop on Facilitating Change in Agricultural Systems in WCA were:

- Integrated Agricultural Research for Development (IAR4D) is an effective approach to improve agricultural productivity in WCA by supporting technical innovation and institutional change within agricultural systems
- IPs enable various actors to work together
- Farmers should be at the center of IPs and involved in all stages of discussions
- The private sector should be more involved in the IPs
- Social sciences, facilitation, and mediation skills are needed to ensure the sustainability of IPs
- Contestation of assumptions, successes and failures of IPs is healthy to drive further refinement of IPs and to avoid falling into the trap of being dogmatic about IPs
- Some of the weaknesses include absence of specific rules for enhancing the success of IPs, lack of sustainability mechanisms, difficulty in accessing inputs, equipment and storage, and low participation of women and youth

- Considerations for the future: Diagnostics to become more pragmatic; question the utility of all practices; don’t ignore the past; never miss an opportunity to learn; elevating learning to science.

Dr Abubacar Njoya, Director of Research and Innovations, CORAF/WECARD, presented the objectives of the workshop that included challenges facing the scaling up and out of IPs, including how to foster stronger engagement with the private sector.

Dr David Bergvinson, Director General, ICRISAT, spoke on ‘Innovations systems application within the CGIAR’ and provided examples of IPs that included ICRISAT’s strategy on Inclusive Market-Oriented Development and examples of IPs involving other CGIAR centres including Agri-Business Incubators, IP hubs of AfricaRice and Integrated Systems for Humid Tropics operating in WCA.

Dr Joseph Mehtu, Director of Capacity Building at ASARECA referred to the role of ICRISAT in supporting the development of agricultural entrepreneurs through the Universities, Business and Research in Agricultural Innovation (UniBRAIN) project. The UniBRAIN project is backstopped by ICRISAT.

Dr Bergvinson reaffirmed ICRISAT’s commitment to backstop UniBRAIN. ICRISAT would continue to facilitate the active involvement of the private sector in scaling up the delivery of profitable and sustainable interventions to support smallholder farmers in WCA.

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Dr Harold Roy-MacCauley, Executive Director, CORAF/WECARD launched three books on IAR4D.

The CORAF/WECARD workshop on ‘Facilitating Change in Agricultural Systems in West and Central Africa Through Application of Integrated Agricultural Research for development (IARD4D)’ was held in Saly-Portudal, Senegal from 25-27 February.

Dr David Bergvinson and Dr Ramadjita Tabo, Regional Director WCA, ICRISAT represented ICRISAT at this workshop. Dr Paco Sereme, ICRISAT Board member was also present at the meeting.

Other key partners who attended the meeting included the National Agricultural Research and Extension Systems (NARES) of WCA (Benin, Burkina Faso, Cameroon, Chad, Ghana, Mali, Niger, Nigeria); farmers organizations; NGOs; regional organizations like CORAF/WECARD (Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/West and Central African Council for Agricultural Research and Development), Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), Forum for Agricultural Research in Africa (FARA); international research organizations like AfricaRice, ICRISAT, ILRI, IITA; Advanced Research Institutes like ICRA, Wageningen University & Research centre (WUR), International Cooperation Centre for Agronomic Research for Development (CIRAD); University of Abomey-Calavi, Benin, and development partners such as World Bank and the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

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Emphasizing on the need for involving agriculture students in research at the grassroots level, Dr C Vasudevappa, Vice Chancellor, University of Agricultural and Horticultural Sciences, Shimoga, Karnataka, said that students need to work alongside farmers to gain a better understanding of the crops they are working on.

Expressing the need for the Bhoochetana experiment to be replicated throughout India and stressing on the importance of involving youth, Dr David Bergvinson, Director General, ICRISAT, said: “We should modernize the way we do agriculture to preserve the environment, provide nutrition and create economic opportunities for the next generation. We have to make agriculture a commercially attractive enterprise for the future producers of food.”

The Bhoochetana program has taken technology to the doorsteps of the farmers through Farmer Facilitators. Wide publicity of Integrated Nutrient Management concept, making arrangement for providing vital inputs at subsidized rates through cluster godowns, training of farmers, Farm Facilitators and officials on Integrated Nutrient Management and demonstrating technology with the help of Field Schools and Field Days – all this helped in widespread adoption of technology among farmers in Karnataka.

CORAF and partners discuss success and challenges... from page 3

Ms Mahadevi
Farm Facilitator, Karnataka

Following soil tests, we have used recommended micronutrients for floriculture, vegetable, soybean and maize cultivation. The yield has increased and the quality of the produce is superior. Farmer Field Schools, visits to trial plots, and publicity by writing on walls has helped increase awareness among farmers about Bhoochetana.

Ms Deepaja SM
Joint Director of Agriculture (Crop Development), GoK

The Bhoochetana Review and Planning Workshop was held at ICRISAT-India from 23-26 February. About 200 participants including farmers, farm facilitators and agricultural officials from various districts of Karnataka participated in the proceedings, providing feedback for the creation of an action plan for Phase II of the project.
Creating a more inclusive culture across ICRISAT offices in Africa

As a follow-up to the Global Planning Meeting (GPM) held at ICRISAT-India and to share the values and culture of ICRISAT with all staff across African locations, various events were organized at the different ICRISAT locations in Africa.

Celebrating ICRISAT values in ESA

ICRISAT-Kenya organized a “Values & Culture” workshop. The workshop was a platform to brief the staff members and to discuss further the outcomes of the GPM, including the culture and values as defined by the participants at the planning meeting in January.

Dr David Bergvinson, Director General, ICRISAT, and Dr Peter Carberry, Deputy Director General-Research, ICRISAT, connected virtually with the teams in Kenya and other locations – Malawi, Ethiopia & Zimbabwe. They briefed staff on the GPM deliberations. “We had a process of looking at our core values at ICRISAT and the issue of “why”... why are we here at ICRISAT, what gets us out of bed in the morning,” said Dr Bergvinson.

Dr Peter Carberry reiterated ICRISAT’s commitment to working closely with the staff in Africa. “We are looking forward to visiting the different locations in sub-Saharan Africa... and getting your input and feedback on how to ensure we deliver in the countries and regions we are committed to in Africa,” he said.

There was strong emphasis on the need to develop country strategies that engage key partners so that we are not seen as competitors. “The CGIAR has always had a strong rationale to support our research delivery through the national systems and that mandate continues today. ICRISAT has to support those public funded systems and how they deliver using the extension services,” emphasized Dr Carberry. He added that the management is looking forward to suggestions from the staff on how to build stronger partnerships.

Dr Moses Siambi, Regional Director, Eastern and Southern Africa, ICRISAT, took the staff through the results of the culture and values survey conducted prior to the GPM. One of the issues raised was the need to categorize the data from the survey into departments, regions and job categories to get a clearer picture of the views of the staff in different locations due to cultural differences.

ICRISAT-Kenya staff worked in groups where they discussed and later illustrated their understanding of the four values by giving examples of how they can and should be used in the day-to-day life at ICRISAT.

The overall comprehension of the values was demonstrated as follows:

- Inclusive culture – We must accommodate diverse cultures (age, religion, gender, expertise/ qualifications/job categories) and recognize the roles of partners in delivering our research agenda
- “We” not “me” - We must recognize everyone’s contribution (including staff members, partners & farmers) towards meeting our goals
- Leadership by example – inspiring yourself and others - Regardless of our status in the organization, we must “walk the talk” and work to inspire others to follow our example
- Strategic & systems thinking to change grow & improve – we must plan for the future and have a holistic view of the organization as a system, comprised of multiple parts, people and subsystems (different programs, regions, departments) working together for a common goal

To show solidarity with colleagues who were present at the GPM, the staff signed the culture and values banner, at a ceremony in the presence of the CGIAR partners based at the World Agroforestry Center (ICRAF) in Nairobi.

The ceremony was facilitated by Dr Alastair Orr, Assistant Regional Director, Eastern and Southern Africa, ICRISAT, who informed ICRAF staff of the new leadership at ICRISAT and highlighted the progress ICRISAT has made in reaffirming its vision and mission and redefining its values. He also invited ICRAF staff to view the ICRISAT banner.

The workshop was held on 13 February at the ICRISAT-Kenya office.
Seminars on ICRISAT Values in pictures

Staff working in groups on assimilating and defining the organization’s mission, vision and values and discussing examples of behaviors.

Staff in Niger watching the video Golden Circle by Simon Sinek (www.ted.com).

Dr Bergvinson and Dr Carberry interacting with staff in Africa virtually.
Celebrating ICRISAT Values in WCA

ICRISAT offices in Mali, Niger and Nigeria organized sessions in their respective stations. Dr Ramadjita Tabo, Regional Director, West and Central Africa, thanked the staff and emphasized the role and importance of institutional shared values in his opening remarks. Dr Tabo then briefed staff on the processes and activities that transpired at the GPM.

In his virtual address to WCA staff, Dr Bergvinson gave a brief presentation of outcomes of the Global Planning meeting and perspectives for the sub-Saharan region followed by a question-answer session.

Group discussions were held on the ICRISAT shared values facilitated by Ms Agathe Diama, Regional Information Officer, assisted by the scientists who had attended the GPM at ICRISAT-India.

Rapporteurs from each group presented their reports in the plenary session, on how the staff understood and related to the four shared values identified by ICRISAT. The ‘Inclusive culture’ was defined as a team approach including all, a culture where everyone feels fulfilled, recognized and considered, a way of doing things that accepts differences, promotes integration and adhesion of the entire team towards professional efficacy, and culture that integrates and treats all with equity. Some examples that depict this value include appreciation that the DG has shared the results of the GPM with all staff.

The culture of ‘we’ not ‘me’ was defined as an attitude to working in teams and where group interest prevails over individual interest. This attitude can be reflected in the way a researcher is open to ideas of team members.

On the third value ‘Leadership by example, inspiring yourself and others’ one example mentioned by staff was the presence of the ICRISAT Regional Director in Samanko, Mali, during the political and security crisis which affected Mali in 2012. Another key example is the Regional Director respecting the security precautions during the Ebola epidemic and inspiring and motivating all staff to follow the precautions.

On the value ‘Strategic and systems thinking to change, grow and improve’, one working group mentioned that improving a farmer’s livelihood means integrating all the activities that will have an impact on his livelihood (towards bringing quality change in his life).

In Mali, the group discussions on the shared values were found to be useful and some participants suggested that such interactions among staff should be organized more often.

At ICRISAT’s Sadoré station in Niger Dr Malick Niango Ba, Niger Country Representative, ICRISAT, assisted by Mr Gaston Sangare, Regional Farm Manager, ICRISAT, facilitated the discussion on ICRISAT shared values.

The Niger team agreed that the importance of the ‘why’ of an organization is key to its success. The video on “The First Follower” was shown to participants, and this resulted in an animated discussion on leadership. Later, the key findings of the survey were presented. Dr Ba indicated that the outcomes of the survey have been the basis for small group discussions during the GPM to arrive at the ICRISAT mission, vision and values. Dr Ba concluded by thanking the staff for responding to the online survey and attending the discussions.

The banner on ICRISAT mission, vision and values was presented and discussed with the staff in Mali, Niger and Nigeria. All the participants agreed that the banner reflected well the outcomes of the survey. They appreciated the participatory discussion and felt comfortable with the message of the banner. All staff signed the banner to show their commitment to ICRISAT’s mission and values.

As in Mali and Niger, staff in Nigeria participated in the video conference on and had discussions and interactions on ICRISAT’s shared values.

The meetings were held on 13 February.
Farewell

Mr D Bhujanga Rao, Technical Officer (Construction), FETS – Farm Services, is retiring on 28 February after serving the Institute for over 37 years.

On his retirement, Team ICRISAT wishes him a very happy retired life.

Reader’s comment

Watershed work has been ICRISAT’s time tested success story and needs as much popularization as possible. For the last 40 years it has produced successful crops every year, on the station and on-farm trails, a most successfully adopted technology. I hope all national programs adopt watershed based research as the basis for soil and water conservation programs and crop production.

— Mr DS Bisht, ICRISAT-Alumni

Announcements

Norman Borlaug Award for Field Research and Application

The Norman Borlaug Award for Field Research and Application recognizes exceptional, science-based achievement in international agriculture and food production.

The award honors an individual under 40 who is working closely and directly “in the field” or at the production or processing level with farmers, animal herders, fishers or others in rural communities, in any discipline or enterprise across the entire food production, processing, and distribution chain.

The deadline for nominations is 30 June for the fourth annual award, which will be presented at the World Food Prize events in October 2015.

Nominations must be submitted in English online at www.worldfoodprize.org/borlaugfieldaward

CSIR award for S&T innovations for rural development

Nominations are invited for the ‘Council for Scientific & Industrial Research (CSIR) Award for S&T Innovations for Rural Development’. The awards aims to encourage innovations in science and technology that

- Transform the lives of rural people or
- Alleviate the drudgery of the rural people or
- Help in employment generation.

Any Indian team, or an organization, or a company registered in India is eligible to apply.

The deadline for nominations is 20 March

For more details refer http://www.csir.res.in

New publication

Vulnerability to Climate Change: A Comparative Study of Perceptions and Adaptive Capacities of Aurepalle and Shirapur Villages

Authors: Rupsha Banerjee, Cynthia Bantilan, Naveen P Singh


Abstract

The current study is an attempt to represent the understanding of the farming community to climate change and therefore the starting point for sensitizing policy makers to work towards aiming to enhance capabilities on adaptation measures of farmers in the semi-arid regions of India and mainstreaming of successful adaptation strategies in the agricultural development agenda.

http://oar.icrisat.org/8576/