

**Fifth U.S.-India Agricultural Knowledge Initiative Board meeting
Washington D.C., June 14-15, 2007**

Joint deliverables

The U.S.-India Agricultural Knowledge Initiative Board met on June 14-15, 2007. Present at the Board meeting was a full complement of Board members from both sides, including government, universities and the private sector. USDA Deputy Under Secretary A. Ellen Terpstra co-chaired the meeting from the U.S. side, and ICAR Director General Dr. Mangala Rai co-chaired from the Indian side. The Board discussed the agenda items, including progress in the four focus areas and announced a number of planned activities, including a finalized list of 17 Borlaug Fellows for 2007 who will be paired with U.S. university partners. The focus area reports at the Board meeting led to productive discussions both of accomplishments and future activities. In addition, both sides agreed to set the dates of the next meeting for second half of February 2008. Agreed upon planned activities are listed below. These will take place in six months. Other activities may take place with mutual consultation of the nodal officers on the two sides.

Human Resource and Institutional Capacity Building

- Twelve Borlaug Fellows will travel to the United States for 6 week fellowships. US side would consider the possibility of also including the 3 applicants who are on the reserve list. In addition, five Borlaug Fellows in biotechnology will travel to the United States for 6 week fellowships. The international travel cost will be borne by India.
- Regarding the two NASULGC projects which were earlier not considered by the India Side, the Indian Co-Chair reconsidered these two proposals and agreed to fund with the inclusion/substitution of Indian partners. The Indian Co-Chair also emphasized the importance of prior consultation about selection of projects and partners so that such a situation does not arise.
- Leadership development which entails three trips of a senior manager for one week duration each may be dropped. An observer may be considered for the first session.
- A project on knowledge and operational linking of National Agricultural Library of USA and (National) IARI Library, New Delhi may be appropriately developed and proposed for funding.
- Following trainings would be organised in India with US experts funded by the US side:
 - a. Group training in India/US on Marker Assisted Selection, Library automation and e-mode information
 - b. Training in cross cutting areas-climate change, nanotechnology, bio prospecting, carbon sequestration and carbon-trading.

c. IP portfolio management

- A workshop on SPS Capacity Building and Science-based Risk Analysis and Modeling will take place from July 23 - August 3, 2007 in Hyderabad, India.
- A workshop on Agribusiness and Food Industry in Developing Countries is planned for Lucknow in August 2007.
- An International Conference on Avian Viral Diseases and Animal Biotechnological Applications will be held August 21-23, 2007 at Madras Veterinary College, Chennai.
- Planning will be done in the next six months for public-private partnership workshop and capacity development team workshop.

Agro-Processing and Marketing

- An India-U.S. Sanitary and Phytosanitary Seminar took place in Washington, DC, June 11-15 with a second seminar planned in India late summer 2007.
- Cochran Fellowship Program will continue in 2007 for up to 12 Fellows with a primary focus area on agro processing and marketing.
- Two joint research projects, one in "Processing and value added products including formulated and fabricated foods, cereals, dairy products through extrusion technology" and the other in "Bio-fuels, by-products/waste management, residue recycling" are planned for 2007.
- A Contract Farming Online "Resource Book" for India will be completed in 2007.
- 4 cold chain workshops will take place in India in 2007. USTDA would identify the agencies to organize the workshop.

Water Management

- A project on remediation including bioremediation of heavy metal, arsenic/fluoride pollutants in soil and water would be jointly developed for funding.
- University of Florida and Washington State University working with Indian counterparts will conduct a survey on gender and social issues in watershed management in 2007.

Biotechnology

The collaborative research projects along with the partners from Indian side as identified by India side were agreed to in principle in the following areas.

- (i) Drought tolerance in rice and wheat
- (ii) Salt tolerance in rice
- (iii) Thermo tolerance in wheat
- (iv) Virus resistance in papaya, potato, banana
- (v) Diagnostic and vaccines for important diseases of livestock and fish

- Five Borlaug Fellows will travel to the U.S. for to the United States for 6 week fellowships as stated under the Human Resource Development and Capacity Building.
- A scientist-to-scientist workshop on harvesting the benefits of biotechnology is planned for fall 2007.

General

- **Biosecurity:** In view of the emerging socio-economic volatility and global threats, biosecurity as related to agriculture becomes an important area. It is required to be addressed as a new component under already identified focus areas of emerging biotechnology. Starting from minimizing the risk of introduction of alien invasive species upto averting the release of bio-agents of mass destruction, a global partnership is necessitated between the like-minded nations.
- The Board would be reconstituted upon completion of two years with each side deciding on the composition limited to 7 members on each side.
- The Board agreed to enhance communications within its member and stakeholders.
- **Funding :** The Indian side is committed to provide funding for the identified projects in the focus areas. The US side agreed to facilitate funding through various U.S. government agencies. Support to individual projects is subject to available funds and will be awarded through the usual process of competitive funding to those organizations having demonstrated capability in the selected area.
- The Board appreciated the offer of private sector to provide internships. The Board suggested that additional details on modalities would be needed. Details for operating this internship can be worked out and approved in the next Board meeting.
- **Other related activities**
The AKI Board was apprised of other activities undertaken in related areas by other US agencies such as USDA, USAID, USTDA, US State Dept. etc. These are given in Annexure I.

Annexure I

Related activities undertaken by other US agencies

- A new activity will focus on the creation of a comprehensive roadmap of India's agricultural insurance market.
- Three new Higher Education Partnerships will be created between U.S. Land Grant universities and Indian state agricultural universities.
- The Farmer-to-Farmer Program will continue with an additional 10 participants planned for the remainder of 2007. The program goal is to increase the income of farmers and farm groups in Uttaranchal State, Himachal Pradesh, and Rajasthan.
- Under the SAMS project, state "Master Trainers" will conduct village level producer training for farmers in Karnataka and Himachal Pradesh, June 18-29, and in Karnataka and Himachal Pradesh on Market News, July 9-20.
- A Terminal Markets Conference will be held August 6-10, in New Delhi.
- Two U.S. study tours, from field-to-fork, for 15 NIAM and state staff "Master Trainers" will be held August/September 2007.
- USDA/FAS will collaborate with Indian hosts on the 2007 meeting of the CODEX Committee of Food Hygiene (CCFH) in the fall of 2007.
- A CODEX Risk Assessment and Risk Management Seminar and Study Tour will be held in October-November 2007 in New Delhi, India.
- Staff from Iowa State University will set up "distance learning class" rooms at UAS Bangalore, PAU Ludhiana, and GBPUAT, August 2007.
- U.S. universities and ICAR are recruiting 15 M.S. students for the U.S.-India exchange degree program in "International Water Management" with the beginning date of July/August 2007.
- Two research projects are currently being established at India partner institutes/universities on "Use of Waste Water for Irrigation" and "Water Harvesting for Groundwater Recharge."
- U.S. undergraduate students (about 10-15) from Univ. Illinois, Purdue, and Iowa State will visit GB Pant University to work with Indian students on joint projects.
- A site visit by Ohio State is planned in June/July to PAU, JLNKVV and MSSRF sites. The site visit is planned to finalize land use and management treatments.
- Following the assessment, equipment for measurement of runoff, erosion and transport of chemicals (e.g., dissolved and suspended loads) will be installed.
- A workshop is planned by to discuss measurement, monitoring and identification of research needs, 15-25 September.
- Humphrey and Fulbright programs will continue.
- USDA will provide 6-8 speakers for an AGBIO 2007 conference on "Harnessing the Benefits of Biotechnology", September 2007.
- An internship program for IP management staff at HAU and KAU has been established including 2-3 month visits to Michigan State University and CGIAR and ICRISAT IPR offices.
- HAU and KAU will conduct three training workshops for trainees from the State Agricultural Univ. in India. Workshops will address IP management and

technology transfer issues and will prepare trainees to establish IP cells at their institutions.

- AGBIOS has been working with ICMR to draft guidelines for the safety of GM foods for the GOI. The final document is undergoing revisions and is expected to be adopted in October 2007. Additional activities on regulatory capacity building and policy analysis will be undertaken by AGBIOS and IFPRI in collaboration with ICMR, DBT and Indian Universities
- A Biotech Research Partnership will begin in fall 2007 between a U.S. biotech company and the Indian private or public sector to develop new rice varieties with traits for drought and salt tolerance.
- Golden Rice varieties are being backcrossed into local varieties and will be field tested. Studies on β -carotene uptake and retention are also underway.
- Additional funding has been provided to support field trials and market release of public sector varieties of Bt resistant eggplant in collaboration with Indian public and private sector partners.
- Field trials and safety evaluation for late blight resistant potato varieties will continue.
- Funding is being sought to support the development of Viral Chip diagnostics project in collaboration with the DBT.