

Minutes of the U.S.–India Agricultural Knowledge Initiative Third Meeting of the Board

June 6–7, 2006

**U.S. Department of Agriculture
Washington, D.C.**

The U.S.–India Agricultural Knowledge Initiative Board met on June 6–7, 2006. 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 deliverables, including a finalized list of 12 Borlaug Fellows paired with U.S. university partners. The focus area reports below summarize the meeting discussions. In addition, both sides agreed to set the dates of the next meeting to correspond with Secretary Johanns' visit to India this coming November.

Presentations by Secretary Mike Johanns, Indian Minister of Agriculture Sharad Pawar, and AKI Honorary Advisor Dr. Norman E. Borlaug were key features of the 3rd AKI Board meeting. Secretary Johanns underlined that the AKI offers a unique opportunity to revitalize the U.S.–Indian partnership in agriculture that was born of the Green Revolution in the 1960s. The benefits will:

- Raise agricultural productivity to promote food security
- Increase technology transfer, including biotechnology
- Build a sound policy and regulatory environment
- Expand trade and investment and promote integration of India into the global economy
- Ensure a key role for the U.S. and Indian private sectors, and
- Reinvigorate U.S.–India university partnerships.

Minister Sharad Pawar spoke highly of the AKI and its potential contribution to a second Green Revolution in India. He said that India's objective is to bring about a transformation in the rural economy by making agriculture a sustainable and profitable venture, especially for India's tropical, arid and dryland areas.

Nobel Laureate Dr. Norman E. Borlaug, who spearheaded the Green Revolution in the 1960s, emphasized the continuing importance of sustainable agricultural practices to maintain a secure food supply. He underscored the crucial role that biotechnology will play in ensuring food security, as improved agricultural productivity, through biotechnology and other means, will help to feed the world's growing population. Dr. Borlaug was pleased that the Board had addressed biotechnology as one of its four priority areas.

Focus Area Reports

Capacity Development Focus Area

The report to the Board covered the status of each component within this focus area, including curriculum development, training and faculty exchanges, public–private partnerships, and institutional capacity building. Since the last Board meeting, the co-facilitators developed an action plan template that describes several activities, such as workshops and planning exercises, that will be undertaken in the coming months. U.S. participation in many of these activities will be coordinated through a grant that USDA will provide to the National Association of State Universities and Land Grant Colleges (NASULGC). Also, two Borlaug Fellowships will be provided in support of this focus area.

Comments from the Board were supportive of the report, and the Indian side agreed with the overall array and status of activities. Indian Board members also reported that they had enjoyed a useful visit to USDA’s National Agricultural Library, where the first steps in forming a library partnership were discussed. The Indian Co-Chair also indicated that it is not too late for U.S. experts to share their recent experiences in curriculum development on Indian agricultural curriculum reform, but that this needs to be accomplished quickly. The importance of extension and India’s experience with extension were discussed briefly, as was the importance of distance education and e-extension. The Indian Co-Chair reported that there is high-level interest in the public–private partnership activities envisioned within this focus area.

Food Processing and Marketing Focus Area

The report provided a brief overview of the food processing priority area and how it is well positioned to include public, private-sector and university involvement. The U.S. Trade Development Agency (USTDA) announced that it was sending a mission to India later this month to provide the framework for training on cold chain improvement that will be undertaken in the fall or winter of 2006–2007. USTDA welcomed any suggestions by the Board members regarding contacts and focus.

USDA is planning at least one trade and investment mission to India in 2007 to facilitate agri-business investment in India. In addition, USDA may add an agricultural component to a November 2006 trade and investment mission organized by the Department of Commerce.

Sanitary–Phytosanitary (SPS) training will bring U.S. and Indian governments, the public, and universities together to learn more about the rulemaking process, how regulations are developed and passed, U.S., Indian and international regulatory organizations, and how the private sector provides input into the regulatory process. There was a suggestion to select a commodity for participants to follow through the regulatory and rulemaking process. There was concern that activities will focus only on fruits and vegetables, which will not be the case.

Training on growing crops under contractual agreements will be conducted in both the U.S. and India, and will include the legal mechanisms of contracts and adapting the U.S. system to India's conditions. A Board member emphasized that, before the mechanics of contracts can begin, farmers need to switch to plant varieties that are more suitable for processing, which is currently not the case. IFPRI, USDA's partner, will ensure that all aspects are considered.

A project, aimed at strengthening agricultural market systems and funded by USAID, is currently underway. The Indian side questioned how the three pilot States were chosen. The project manager explained that they were representative of well-developed, medium-developed, and under-developed market structures, rather than areas of highest production. New States likely will be selected in future phases.

Biotechnology Focus Area

Discussion of the biotechnology focus area covered several issues. Board members reiterated their previous agreement that biotechnology can make an important contribution to sustaining the "Evergreen Revolution." The U.S. representatives expressed concerns over recent regulatory and policy developments in India, which, in their view, will make it harder for both public and private sectors to deliver beneficial biotechnology products to farmers and markets. Indian representatives emphasized the commitment of the Indian government to the jointly agreed activities, as a whole, and to the use of biotechnology to sustainably increase agricultural productivity. The Board agreed that regulatory and IPR issues will be worked out appropriately over time, while respecting the rules, regulations and agreements of both countries.

Board members expressed support for projects outlined in the work plan, including a proposed workshop on "Harnessing the Benefits of Biotechnology" and research and training projects developed in cooperation with USAID and TDA. Cooperation in genomics and molecular breeding will be further developed during an August 2006 workshop on molecular breeding in legumes.

Water Management Focus Area

The water management facilitator reported three activities that will take place in the next three months. First, a joint planning workshop will be organized by USDA and ICAR in India in the next 2–3 months. The goal is to formulate the technical program and funding for all five elements under the water management area. Participants will include Indian and U.S. professionals from universities, the private and public sectors, and other stakeholders. The focus topics will be:

- Agriculture-related, non-point source pollution
- Waste management
- Re-use of wastewater for irrigation
- Early warning systems for agricultural drought
- Crop condition assessment techniques

- Soil–water–plant interactions, and
- Use of modern tools in water management.

Two USAID-funded projects are focusing on sustainable use of ground water resources. The first project, Water–Energy Management, is demonstrating a water conservation technology (drip irrigation) that conserves water and power as a resource management initiative, while promoting effective water and energy-management policy at the State level. The project has already started and will continue through 2008. The second project, Resource-Conserving Agricultural Technologies, will promote efficient use of farm input resources through technologies, such as zero-till, in the Indus–Ganges basin and southern India to foster adoption of water-conserving technologies.

Joint Deliverables from the 3rd Board Meeting

AKI deliverables that were reported at the June 6–7 meeting are as follows:

1. The two sides have selected **12 Borlaug Fellows Program (BFP) fellows** from India (please see attached list), with matching U.S. host universities for late summer or early fall programs. The BFP supports all four AKI focus areas.
2. The two sides have nearly completed selection of **12 Cochran Fellowship Program (CFP) fellows** from India, and are arranging specific programs for later this year. Fellows primarily support the Food Processing and Marketing focus area.
3. USDA is providing a grant to the **National Association of State Universities and Land Grant Colleges (NASULGC)** to fund U.S. Land Grant institutions’ joint capacity building and research projects to facilitate agricultural technology transfer in the areas of “University Capacity Building” and “Water Management.”
4. The two sides are working with the **World Food Prize Foundation** to develop a special session on the AKI at this year’s World Food Prize International Symposium, slated for October in Iowa. In addition, many of the newly selected Borlaug Fellows from India will attend the ceremonies.
5. In August, as part of cooperation in biotechnology, Indian partners will participate in a **Workshop on Genomics-Enabled Molecular Breeding in Legumes** organized by University of California/Davis.
6. In September, Indian partners will attend a special **Agricultural Biotechnology Short Course** at Michigan State University. The core training will cover such topics as research and development, biotech regulations, international organizations, global economy, marketing and consumers, and food security and technical assistance.

7. A Joint **Workshop on Water Management** is slated for August/September, in India. The goal is to formulate the technical program and funding for water quality management, agricultural drought, soil–water–plant interactions, sustainable use of ground water and use of modern tools. Participants will include U.S. and Indian representatives from universities, the private and public sectors, and other stakeholders.
8. In October, as part of a joint program to **Strengthen Agricultural Market Information Systems**, the first of a series of 2-week long **Training the Master Trainers Courses** will take place in India. The program targets three Indian states: Himachal Pradesh, Rajasthan, and Karnataka. U.S. university partners include Pennsylvania State University, the University of Idaho, and the University of Nevada.
9. A capacity building workshop on **Food Safety and Animal and Plant Health Regulatory Frameworks** is planned to take place in the United States in September. This joint program is aimed at strengthening trade and investment opportunities in the food processing and marketing sector.
10. The two sides will establish a standing **U.S.–India Joint Working Group for Capacity Building in Curriculum Development** for agricultural universities by October. A U.S. team will also be formed as soon as possible to share experiences on agricultural curriculum reform with Indian colleagues.
11. At the end of June, a U.S. team of technical experts will travel to India to develop a scope of work for a joint program on **Improving the Handling of Perishable Foods in India’s Cold Chain**.
12. It was announced that the **Hubert H. Humphrey and Fulbright Educational Exchanges Programs** will now include participants under the AKI. Board members received information and applications concerning these programs.
13. Both the U.S. and Indian sides have established **AKI Websites** and will provide regular updates.
14. Board members agreed to the following :
 - a. The Board will continue its leadership on broad strategic objectives and thematic focus areas and will meet at least once a year. The next Board meeting will take place in New Delhi, India in November, 2006.
 - b. All Board members will seek to **identify additional funding sources** from the public and private sectors.
 - c. The AKI should establish a **monitoring and evaluation process**, which should be built into project design.

- d.** The Secretariat will draft a **protocol document on implementation guidelines** which will clarify respective roles, selection processes, authorities, responsibilities for costs, etc. The U.S. side will prepare the initial draft of this document.