Creating Opportunities for Agribusiness to take off

An Initiative by NAIP of ICAR facilitated by ICRISAT
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NIABI’s Mission

Our Mission
To enhance agribusiness development and impacts on agriculture through co-business incubation.

How we Accomplish this Infrastructure
• Create a databank of indigenous agro technologies for commercialization from ICAR and SAUs.
• Identify international agro-technologies suitable in the Indian context
• Create a networking platform for agri-businessmen and mentors
• Create a platform for facilitating funding to start-up agri-businesses.

Process
• Conduct capacity building/training in new initiatives in agri-business incubation for business incubation managers
• Promote agri-business incubation nationally through co-business incubation.

Outcome
• Facilitate agri start-ups and incubatees by participation in exhibitions
• Conduct seminars on best practices for start-up agri-businesses through video conferencing/webcasting
• Facilitate soft landing support
• Annual Incubator/Incubatee awards.

Highlights of NIABI
• Swifter diffusion from lab to land
• More effective interventions through appropriate PPP model/systems by involving all stakeholders
• A fully vertically integrated and horizontally networked mechanism offering total solutions to entrepreneurs for agriculture development, bringing together:
• Technologies and research outputs as implementable projects
• Service providers and seekers to a platform for effective technology exchange
• Stakeholders, to enable them with capacity and resources and enhance their performance to create measurable impacts on beneficiaries.

Focus Sectors
• Agriculture
• Veterinary
• Dairy
• Cotton and Jute technologies.

Opportunities in Store
For Institutions
• Increased commercialization of technologies from agri-institutes
• High net worthy deals of technology transfer, exits by Mergers and Aquisitions through BPD/Business Incubator (BI), etc
• Facilitate commercialization of innovative agro-technologies through agri-business development benefiting farmers
• Strengthening the regional agri-entrepreneurial ecosystem
• Effective marketing of programs and services to clients
• Facilitating self-sustainability of BPD/BI
• Impacting farm livelihoods through products and services of incubatees
• Opportunity for entrepreneurs and innovators.

For Entrepreneurs and Innovators
• One-stop solution for entrepreneurial needs
• Support services for agriculture and allied sectors
• Regional presence as reach-out strategy
• Pool of commercializable technologies
• Interstate support available through co-business incubation
• Mentoring, support, and access to infrastructure and facilities
• Technology and consultancy
• Research & Development facilities and office space with built-in facilities
• Access to high-end equipment
• Conference and meeting rooms
• Facilitate funding
• Capacity building
• Agricultural land and greenhouses
For budding entrepreneurs

NIABI: Your gateway to endless opportunities in agribusiness sector

The Indian Council of Agricultural Research (ICAR) is an autonomous organization under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture, Government of India. With its headquarters at New Delhi, the Council is the apex body for coordinating, guiding and managing research and education in agriculture including horticulture, fisheries and animal sciences in the entire country.

The Council in 2009, through a World Bank aided National Agricultural Innovation Project (NAIP), had setup 10 Business Planning & Development (BPD) Units in its research institutes and State Agricultural Universities (SAUs). The BPD units come under Component I of the NAIP.

The Agri-Business Incubation (ABI) program of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) located at Hyderabad was entrusted with the responsibility of handholding and mentoring these Units, so as to make this novel initiative, successful and self-sustainable. This is the genesis of the Network of Indian Agri-Business Incubators (NIABI), the gateway to creating your own agribusiness venture.

The BPDs are essentially agribusiness incubators, designed to nurture entrepreneurship in agriculture and allied sectors, and to promote agri-innovations at the grass root level, with the assistance of the vast agri-technology repository, R&D facilities and knowledge available with the National Agricultural Research Systems (NARS).

Mission

To promote agribusiness development in the country and enhance the growth of the agriculture and allied sectors, through co-business incubation.

NIABI strives to achieve its mission, by offering innovators/entrepreneurs a platform for: accessing agri-technologies, technical and scientific backstopping, mentoring, facilitate funding avenues, networking and agribusiness promotion events, and to utilize the vast R&D infrastructure in the NARS.

IMPACT / Highlights of NIABI

NIABI has brought about a paradigm change in how technology transfer is conducted in the NARS. It has also brought about a revolution in the agricultural sector, by way of promoting agribusiness and innovations in the sector, transforming farmers and rural youth into entrepreneurs and enhancing their livelihood.

NIABI Centers
of the notable highlights since the inception of NIABI have been:

- Building entrepreneurship ecosystem and growth of agri-enterprises through NARS
  - 383 incubatees are being currently provided incubation assistance for setting up their own agribusiness ventures
- Developing new yardsticks and an enabling environment in the scientific community, thereby ushering in a business culture in NARS
  - Setting up of 10 incubators and formation of NIABI, for technology development and commercialization, is itself a novel initiative in the NARS
  - Incubator is the platform that will facilitate Public-Private Partnership (PPP) venture for the NARS, helping it to scale up its R&D findings and technologies that will benefit millions depending on the sector
  - Changes to the scale and scope of technology commercialization, in targeting the right audience
  - New systems for incubator management including new infrastructure and facilities for promoting start-ups, business oriented team at each incubator, along with market oriented services, and legal advisory boards for their effective governance
- Incubating innovations from the grass root level in NARS
  - NIABI has helped in making NARS more effective by reverse technology flow; innovations in the agriculture and allied sectors are now nurtured in NARS through these incubators
  - Incubators have been able to leverage schemes of the Government of India meant for promoting innovation and entrepreneurship; for example, the Ministry of Micro, Small and Medium Enterprises (MSME), Technology Development Board (TDB), Technopreneur Promotion Project (TePP) and Small Farmers Agribusiness Consortium (SFAC)
  - New agencies open up new avenues of collaboration and funding, such as SFAC DPRs, for 14 clients of BPDs and SFAC Venture Capital Scheme Campaign in 10 BPDs generating 54 agri-business proposals worth Rs 99 crores
- Developed a new revenue stream to NARS
  - The ten incubators have so far made gross revenue worth Rs 9.2 crores, generated through BPD membership, technology transfer, business consultancy, rent and lease of infrastructure etc
  - Additional fund worth Rs 5.50 crores, mobilized for the BPDs by ABI-ICRISAT through National Science and technology Entrepreneurship Development Board of the Department of Science and Technology (NSTEDB-DST), Department of Bio-Technology (DBT) and the MSME, aiding in sustaining the incubators
- Enhanced take-to-market strategy for agri-technology commercialization from NARS
  - Successfully commercialized 72 agri-technology transfers, through 400-odd entrepreneurs, within a short period of two years since inception
- NIABI: Spearheading the global network for promoting agribusiness incubation
  - Created the Global Agri-Business Incubation (GABI) network for promoting agribusiness ventures and innovations across the world, exchanging agri-technologies and knowledge to facilitating business development of Indian agribusiness start-ups in newer foreign markets, enhancing south-south collaboration in the sector to benefit the farming community worldwide
  - Soft landing platform for foreign agri-companies looking to setup operations in India through Indian counterparts
- Success of NIABI has led to ICAR planning to scale up the initiative by starting another 50 incubators in the 12th Five Year Plan, covering all states in the country.
A snapshot of the technologies commercialized through the agribusiness incubators in NIABI, during the period October 2011 to September 2012.

**BPD Unit, AAU**

**Anubhav Liquid Bio-fertilizer**

Liquid Bio-fertilizers are liquid preparations containing effective strains of micro-organisms like bacteria, algae, fungi which can provide plant nutrients through microbial activity. With a shelf-life period of more than one year, these are highly effective in organic farming and are suitable for drip irrigation and green house technology.

AAU’s Department of Microbiology isolated and developed nitrogen fixing and phosphate solubilising Liquid Bio-fertilizers after decades of intensive research. This technology is promoted under the brand name, Anubhav and has been standardized at AAU.

**Licensees:**

- Kemrock Agritech Private Limited
- Gujarat State Fertilizers and Chemicals Limited
- Gujarat Agro Industries Corporation Limited

**ZTM- BPD Unit, IVRI**

**Peste des Petits Ruminants (PPR)**

Hybridoma clone 4b11

This is used for quality control during the manufacturing of PPR vaccine; Peste des Petits Ruminants (PPR) also known as goat plague is an OIE list A disease. Using the PPR vaccine helps in cost effective production of small ruminants, building immunity and easy scaling, thereby increasing the profitability.

**Licensees:**

- M/s Institute of Animal Health Veterinary & Biological
- M/s Intervet India Pvt. Ltd

**Classical Swine Fever Virus Cell Culture Vaccine**

The vaccine provides immunity against swine fever for a year as tested by direct challenge after 13 months, when there was no untoward reaction seen in animals. The vaccine has been validated in the field.
Licensees:

- M/s Indian Immunologicals Ltd.

**Vero Cell based Goat Pox Vaccine**

The vaccine is based on an indigenous strain developed by IVRI. The vaccine is safe, potent, and efficacious, providing immunity for at least 40 months and immunity is possibly life-long. The vaccine is contra indicated in pregnant animals. The vaccine does not interfere with immunogenicity of other vaccine such as PPR vaccine or vice versa. It can confer protection even at a low dose of 10 TCID50 per animal.

Licensees:

- M/s Institute of Animal Health Veterinary & Biological
- M/s Indian Immunologicals Ltd.,

**Vero Cell based Sheep Pox Vaccine**

The vaccine is based on live vero cells. The vaccine production is commercially viable, because of ease of scaling up, and does not require high cost of infrastructure for vaccine manufacture. The vaccine is supplied in a lyophilized condition, is highly thermo-stable, and can tolerate temperate conditions without loss of titre. An added advantage is that it is easily transportable.

Licensees:

- M/s Institute of Animal Health Veterinary & Biological

**Recombinant Antigen (VP7 Protein) based indirect ELISA for Bluetongue Antibody**

The BTV antibody detection kit uses the VP7 gene expressed in bacteria and the protein that is affinity-purified. The indirect ELISA is performed and developed with the purified recombinant VP7 (rVP7). The diagnostic kit will help in identification of actual disease condition/situation and the use of this diagnostic tool will help to improve sheep animal husbandry.

Licensees:

- M/s Vivimed Labs Limited

**Emulsion based Chicken Products**

Licensees:

- M/s Vivimed Labs Limited
This technology provides convenience and ready to eat processed chicken products like sausages, patties, nuggets, meat balls etc for human consumption. The meat products are delicious, safe and nutritious and have indigenous flavour profile along with refrigerated (4±10C) shelf life of about 3 weeks, while under frozen conditions (-18±10C) shelf life of about 3 months.

Licensees:

- Dr Minakshi Chaudhary

ZTM-BPD Unit, CIFT

Value Added Products from Fish

Value added products are prepared either from dressed fish or from fish mince. These products can be made on small scale with minimum of equipments or can be manufactured industrially with the help of sophisticated machineries.

Licensees:

- M/s Jai Gayatri Export

Ready-To-Serve Fish Curry in Retortable Pouches

The technology provides a method for preparing the ready-to-serve fish curry in retort pouch with excellent storage stability and quality with a shelf life of more than one year at ambient temperature.

Licensees:

- M/s. Jai Gayatri Export
The ETP was designed with an objective of treating the effluent produced from fish/food processing units, with minimum energy utilization. The ETP is scalable to any capacity and has the capability to reuse the water. Effluent released from the plant has no harmful effects to the surrounding and prevent pollution.

Licensees:

- Uniloids Biosciences Pvt Ltd
- M/s Mangala Marine Exim India Pvt. Ltd
- M/s Blue Water Foods & Exports (P)

ZTM-BPD Unit, NIRJAFT

Jute Stick Particle Board

This technology opens up avenue for use of the jute sticks which are of hard wood type. The board can be used as a substitute of wood, which can be used for partition walls, false ceilings, furniture etc. These boards are produced by mixing jute stick chips with synthetic polymer resins and pressed in a hydraulic press under optimum condition of temperature, pressure & time.

Licensees:

- Trishna Jute Private Limited
- BKC Enterprise
- Nature Board and Dhubi Gram Unnayan Samiti

Prawn Farming

This technology on commercial prawn farming was developed with the assistance of the Central Institute of Freshwater Aquaculture, Bhubaneswar.

Licensees:

- Dawn Aqua Farm
Jute based Reinforced Composite Products

This technology for manufacturing jute reinforced plastic products uses jute textiles and synthetic resin. Composites with improved strength and flexural properties are produced by partial removal of hemicellulose, lignin, fat and wax etc. by scouring, bleaching, enzyme treatment, pre-hydrolysis under pressure etc. These treatments improve the compatibility of the fibre with the resin and better composites are formed. The products are lighter than metal and GRP.

Licensees:
- Modern Constructions

Jute Handmade Paper

The product is made from jute waste along with minor blending (to the extent of about 10 percent) by adopting an inexpensive pulping process with minimum use of cooking chemicals like caustic soda, sodium carbonate, lime etc. The blending materials are hosiery cuttings, tailor’s cuttings etc. The pulp may be dyed with commonly available dyes or even natural dyes keeping environmental-friendliness of the finished products in view. The products are paper sheets including writing grade paper, paper boards, file covers, greeting card etc. The technology also opens up a new avenue for utilization of jute wastes which would otherwise be burnt by farmers or thrown away creating disposal problems.

Licensees:
- Kalighat Society for Development Facilitation for Jute Handmade Paper

BPD Unit, JNKVV

Hybrid Rice JRH-8 & JRH-5

JRH-8 & JRH-5 are early duration rice hybrids suitable for rain-fed conditions. These hybrids have higher yield potential of improved varieties of rice in rain-fed condition. These hybrids also have saline tolerance characteristic and can withstand drought.

Licensees of JRH-8:
- Vibha Agrotech Limited
Licensees of JRH-5:

- Vibha Agrotech Limited
- Ajeet Seeds Ltd, Jalna
- Trimurti Plant Sciences Pvt. Limited
- Dantewada Seeds Pvt. Ltd

Hybrid rice JRH-5

Maize Hybrids
The high value, Quality Protein Maize (QPM) varieties/hybrids such as HQPM-1, HQPM-5, HQPM-7, HM-4, HM-5, etc contains nearly twice the quantity of the essential amino acids, lysine and tryptophan, which are essential building blocks of protein in humans, and mono-gastric animals like poultry and pigs. The maize varieties/hybrids are very good in quality and yield and can fetch high prices in domestic and global markets.

Licensees:
- Maize Hybrids (HQPM 1 & HM 5): Charoen Pokphand Seeds Pvt Ltd.
- Maize Hybrids (HQPM 1): Balaji Seeds
- Maize Hybrids (HQPM 1 & HQPM 5): Sansar Agropol Ltd.
- Maize Hybrids (HM 9, HM 10 & HM 11) : Nath Bio Genes India Ltd
- Maize Hybrids (HM 8, HM 10 & HM 11): Bhartiya Beej Nigam Ltd

Hybrid rice JRH-5

Maize Hybrids

TNAU-Master Trap

Nutrigold – Organic Plant Growth Promoter

SRI Power Weeder
**Schizont Cell Culture Vaccine against Bovine Topical Theileriosis**

**Licensees:**
- M/s Hester Bio Sciences Ltd.

**BPD Unit, TNAU**
**TNAU-Herbal Insect Repellant**

The rice earhead bug can cause loss in yield, to the extent of 10 percent, if left unchecked. The TNAU-Herbal Insect Repellant is a derivative from the sweet flag herb, and is very effective in controlling the pest.

**Licensees:**
- M/s Bhuvicare Pvt Ltd

**Nutrigold – Organic Plant Growth Promoter**

Nutrigold contains secondary protein extracts. Foliar spray of Nutrigold in critical stages of crop growth increases the productivity of the crop by about 15 percent. Similarly, seeds coated with Nutrigold have shown improved speed of germination and germination percentage, as well as seedling vigour. It is ideal for cotton, maize, rice, spices, tea, vegetables, pulses and other agricultural/horticultural crops.

**Licensees:**
- Nita Gelatin India Ltd.

**Solar Crop Drier (Tunnel type)**

The drier consists of semi-cylindrical tunnel structure which is covered with Ultra Violet (UV) stabilized polyethylene as collector material. The drier is a walk-in type and to facilitate loading and unloading of the product to be dried. The floor of the drier is constructed with cement concrete and coated with special black or high thick black polyethylene sheet, and acts as absorber surface to utilize maximum solar radiation thereby increasing the temperature. The drier works on the Green House effect principle.

**Licensees:**
- M/s Unique Fabricators

**SRI Power Weeder**

The power-operated weeder for System of Rice Intensification (SRI), has a novel provision of a float for operating in all kinds of soft-puddled soils without sinking and provision for varying the operating width of row spacing between 20cm to 30cm. The weeder, can weed two rows of crops at a time, is operated by a 1.5 HP engine and weighs just 17kg. The machine can be used to weed 0.8 hectares of rice field in a day.

**Licensees:**
- M/s Rich Phytocare Pvt Ltd
- M/s Basarass

**TNAU Stored Grain Insect Management Kit**

The kit developed by the Department of Agricultural Entomology and the Centre for Plant Protection Studies of TNAU, contains prototypes of all the devices for detecting the presence and movement of the pests that infect stored grains and seeds, thereby helping in its timely detection. The kit also contains a CD-Rom about the devices and how to use them.

**Licensees:**
- M/s Melwin Engineering
TNAU Master Trap

This multipurpose device has been uniquely designed to include most known traps, serving as an all-in-one kit. It can be used as a light trap, pheromone trap, fly trap, midge trap, sticky trap and rat trap and is useful in Integrated Pest Management. It embodies a master frame that encloses a master chamber to which accessories can be fitted from all sides so that the attractant sources can be placed either inside or outside the master chamber to trap the pests either inside or outside of it.

Technologies

- Liquid Biofertilizer
- Neutraceuticals and Functional Foods
- PCR based detection Kit for bacterial blight of pomegranate
- Candy from fruits (Aonla, Mango, Carrot)
- Chrysanthemum Variety Pusa Anmol
- Pusa Bajra Puff
- Maize variety-PEEHM 5
- Wheat variety-HD 2967

Licensees

- M/s Sai Bio Organics, Punjab
- M/s Ozone Biotech, Faridabad
- Ostwal & Harit, Malegaon
- M/s Gold Win Agro Foods Pvt Ltd, New Delhi
- M/s Leadbeter Seeds, Bangalore
- M/s Agro Tech Foods Limited, Gurgaon
- M/s Goutami Seeds Pvt. Ltd., Kurnool
- M/s Sampoorna Seeds
- M/s Sri Laxmi Venkateshwara Seeds, Kurnool
- M/s Muralidhar Seeds Corporation
- M/s Victory Seeds Ltd, Kurnool
- M/s ID Agri Seeds Pvt Ltd., Delhi
- M/s Akash Seeds & Co.
- M/s Amar Seeds, Ludhiana, Punjab
- M/s Amar Seeds, Punjab
- M/s Asian Seeds, Karnal
- M/s Aujla Seeds, Machhiwara
- M/s Bhagati Seed Farm, Punjab
- M/s Bhatinda Seed Farm, Bhatinda, Punjab
- M/s Bhatti Agri Seeds, Sirsa, Haryana
M/s Bhawani Seeds & Biotech
M/s Dhaliwal Seed Farm
M/s Dhaliwal Seed Pvt. Ltd., Kurukshetra
M/s Hans Moderan Agri. Seeds, Karna
M/s Harbir Agrotech
M/s Haryana Seeds Co., Haryana
M/s Hygiene Kamboj Seed Farm, Punjab
M/s Japreet Singh Gill
M/s Kamboj Export
M/s Kurukshetra Seeds Pvt Ltd, Haryana
M/s Mehta Seed Farm, Karnal, Haryana
M/s Model Agritech India Ltd.
M/s Navodaya Seed Farm
M/s Nirankari Agri Seeds

M/S Parbhat Seed Traders, Kurukshetra
M/s Punjab Beej
M/s Sahil Seeds, Ludhiana, Punjab
M/s Sahu Seed Farm
M/s San Seed Farm, Moga, Punjab
M/s Sandeep Seeds, Ludhiana
M/s Sandeep Seeds, Ludhiana, Punjab
M/s Sandhu Seed Farm, Sirsa, Haryana
M/s Sekhon seed farm, Punjab
M/s Sekhon seed farm, Sangrur, Punjab
M/s Vignette Hi-tech Seeds Co. Karnal
Blooming Business Initiatives

Madurai malli (jasmine) set to become a global brand

The BPD Unit of TNAU has started out on a new venture of establishing the first ever, value chain based agribusiness incubator in the country for the Madurai Jasmine flowers. The incubator will look at addressing the production and marketing constraints involved in the value chain.

Madurai in Tamil Nadu is famous for its jasmine cultivation. Jasmine concrete and oil manufactured in Madurai have a great demand in the overseas market, as the jasmine grown in the region has certain unique characteristics like longer shelf life, and high levels of fragrance. Currently the export markets of jasmine are the European countries and the USA, for use in perfumes.

The incubator will be an entrepreneurial hub, located at the Agricultural College and Research Institute, Madurai, which will provide a greater thrust to the industry by involving all the stakeholders, and to promote entrepreneurship among the jasmine growers. This will help in meeting the huge demand-supply gap for jasmine while constraints like labour scarcity, lack of adequate number of cargo facilities for exports, and huge price volatility in the flower market will also get addressed by the incubator.

The incubator will also become a conduit for technology commercialization especially that of jasmine packaging technology developed by the AC&RI under the NAIP, which was on display during the second stakeholders meeting of the Madurai Malli Growers Development body.

Producer company Beej India goes for rabi crop

With a motto of converting farmers to entrepreneurs, the ZTM-BPD Unit of IARI facilitated the formation of a producer company named Beej India Producers Co. Ltd, which has been registered under the Companies Act 1956. Beej India currently has 50 farmers with 20 subscribed founding members. It has an eight member executive board, with IARI as Advisory Director in the Executive Board.

Seed venture activities from rabi 2012 were initiated covering an area of approximately 100 ha. The target crops for this season are wheat, pulses, oilseeds, potato and various other vegetable crops. It is hoped that Beej India will not only bring prosperity directly among farmer members but will also set an example for farmers from other areas in the region.
BPD TNAU introduces Inter-Incubatee Incubation:

Successful Incubatees train new ones

As is the norm in business incubation, new models of incubatee support models keep on emerging. This time, it is the BPD Unit of TNAU, which has developed a unique model in providing business incubation services to its members. It has mapped the skills of all its incubatees, utilizing it for providing services amongst themselves.

This is the first instance of such an attempt among all the agribusiness incubators in the country and has already started to show results.

Product Developed: Development of Industry automation product

Incubatees involved:

M/s Provimi Product Pvt Ltd and M/s Emral Tune Line Auto Tech Ind is involved in the manufacture and sale of a flagship veterinary product, Salt Lick (mineral mixture for animals). The company was facing a problem in increasing its production and had decided to develop an automated system for its production unit, for which they approached the BPD Unit.

Having understood the potential of Emral Tune Line Auto Tech in developing engineering products, the Unit requested them to develop an industrial automation system for Provimi.

Emral was able to develop the required automation system and installed it at the factory of Provimi. This timely intervention and development of the automation system has helped Provimi to attract orders worth Rs 80 lakhs from the Government of Tamil Nadu.

Product Developed: Tomato chutney

Incubatees involved: M/s JK Foods and Traders & M/s Vinzi Sperri Pvt Ltd

Mrs Kalaiselvi, the Proprietor of JK Foods and Traders, had enrolled her firm as one of the members of the BPD Unit for developing novel food products. With the involvement of Dr Sathiyamoorthy, PhD, and Partner of Vinzi Sperri, another incubatee of the Unit, it was proposed to formulate ready-to-eat chutneys. Mrs Kalaiselvi found the idea interesting and asked the Unit officials to facilitate the process of formulating tomato chutney. The product was developed with the intervention of the Unit, and she has since

Mr MP Rajkaumar, Proprietor, M/s Emral Tune Line Auto Tech Ind (left) with M. Sudarshan, Managing Director, M/s Provimi Products Pvt Ltd during installation of the automation
Dr PS Pandey, National Coordinator, Component-1, NAIP taking a look at the products of Mrs Kalaiselvi, Managing Director, JK Foods during the entrepreneurs interactive session held at BPD-TNAU on 6 August, 2012.

Dr P Sivasubramanian, PI, NAIP-BPD project with his team members and Mr Rajkumar, Emral Tune Line Auto Tech Ind (Fourth from left) while commissioning the Banana Fibre threading Machinery at BPD-TNAU.

Product Developed: Banana Fibre Threading Machinery

Incubatees involved: M/s Eco Green Unit and M/s Emral Tune Line Auto Tech Ind

M/sEcoGreenUnit is involved in the manufacture and sale of banana fibre based products. The firm supplies machineries and inputs to Self Help Groups and purchases the finished goods.

Eco Green Unit was exploring the opportunity of designing and fabricating Banana Fibre Threading Machinery, as thread making demands much time and energy of the craftsmen. Eco Green Unit approached the BPD Unit and requested facilitation of the designing and fabrication of the said machinery.

The BPD Unit was able to successfully facilitate the design and fabrication of the Banana Fibre Threading Machinery through another of its incubatee, M/s Emral Tune Line Auto Tech Ind. The machinery has been well appreciated by

Seed Business Venture Program of BPD Unit of BAU at Upparbandha and Benasol

The farmers of Upparbandha and Benasol villages were not raising any crops for the last two seasons because of the failure of the monsoon and lack of financial resources.

Meanwhile the National Bank for Agricultural and Rural Development (NABARD) Regional Office had launched the scheme of Seed Village program and invited the Unit to pilot the project with the farmers, in a bid to help reverse the situation. The Unit proposed for the first NABARD supported seed village program in the state of Jharkhand with 50 percent grant assistance from NABARD, and two seed business ventures were successfully incubated for production of paddy seed on 50 acres of land with 50 farmers turned agripreneurs of Upparbandha Beej Gram and Benasol Beej Gram.

The seed villages were provided with incubation support on capacity building, access to foundation seed, registration with state seed certification agency, and technical consultancy from BAU scientists. They were provided with the access to the seed processing facility of BAU and quality control,
branding and marketing. Through this seed business venture, the farmers in the region who were facing cash flow problems will be able to realize better price realization with the sale of seeds. The source of foundation seed was Zonal Research Station, Chianki. The produce of the Seed Village was sold through Large Area Multi Purpose Societies (LAMPS) in the district. About 460 quintals of seed was supplied to the government through this venture. NABARD also provides 12 percent of the project cost to the BPD Unit for its handholding services.

**All India Development Trust (AIDT) initiates innovative concept of turmeric cultivation in Tarai Belt of Pilibhit area, Uttar Pradesh**

Mr Gurbhag Singh, a dynamic and self-motivated entrepreneur along with Mr Rishipal Singh and Mr Sukhjinder Singh of Agri-Clinic Agri-Business Center (ACAB) initiated an innovative concept of turmeric cultivation in the Tarai belt of Pilibhit and was successful in their endeavor.

In a span of time, they diversified into allied agricultural practices also, namely dairy farming, stud farm management, and also on educational empowerment of rural youth. However, even after all these initiatives, they were still working in an unorganized manner and lacked a focused approach. They came in contact with the ZTM-BPD Unit during the IVRI Kisan Mela in 2010. Mr Gurbhag Singh later registered with the Unit as an incubatee for availing agribusiness support services on agriculture and allied sectors.

The Unit provided facilities to the group in the form of consultancy on business development in diverse sets of practices.
in the field of agriculture and livestock, and customized services in the form of technical and promotional services, frequent field visits, consultancy on stud management, dairy farming and turmeric cultivation along with preparation of Detailed Project Report (DPR) for funding assistance.

With the guidance and support of ZTM-BPD Unit IVRI, the group registered as All India Development Trust (AIDT) in October, 2011. The transformation of AIDT was remarkable, as they established the Swami Dairy Farm, the Sandhu Stud Farm with 50 quality equine and also Swami Education, for empowering of rural youth and women.

AIDT has also made sincere efforts towards providing employment to many farmers directly and indirectly through 512 Self-Help Groups (SHGs) covering 9216 farmers. Apart from providing employment to farmers, AIDT also assists them with consultancy services regarding turmeric farming, stud farm management, dairy farming, and farm demonstrations for irrigation facilities like drip irrigation and use of sprinklers.

The sustained efforts of AIDT has helped in increasing the turmeric production to 1,76,000 lakh QT in 2010-11, resulting in revenue of Rs 21.12 crores. The AIDT was also accorded as the Best Agri-Business Incubatee at the 2nd Global Agri-Business Incubation Conference: NIABI 2012, in recognition of these achievements.

- Dr. Jawaharlal, Professor and Head, Department of Floriculture
2nd Global Agri-Business Incubation Conference: NIABI 2012 shows entrepreneurship for vibrant agricultural development

The second edition of the Global Agri-Business Incubation Conference: NIABI 2012 highlighted the crucial role of entrepreneurship as a catalyst for agricultural and economic development. Jointly organized by the National Agricultural Innovation Project (NAIP) of the Indian Council for Agricultural Research (ICAR) and ICRISAT, NIABI 2012 was held at IARI in New Delhi during 6-8 February 2012.

Dr APJ Abdul Kalam presided as the Chief Guest at the Inaugural Session of NIABI 2012. In his address, the former President of India spoke on the need for a vibrant agricultural development through innovations and inclusive growth for India to become an economically developed nation by 2020. This, he added, is possible through product diversification, with focus on better technology, sound entrepreneurship, infrastructure development, and market understanding.

The Director General of ICRISAT Dr William Dar in his message during the conference said that worldwide, business incubators are now gaining recognition as vital to agricultural and industrial agribusiness sectors, where technology serves as a precursor for improving the economic, social and environmental conditions especially of rural communities.

The Global Agri-Business Incubation Conference was started as a way to promote and publicize the concept of NIABI and its agribusiness incubators amongst agribusiness entrepreneurs at national and global level; to sensitize the research community in NARS about NIABI as a way to disseminate agri-technologies; and to highlight to the funding agencies and policy makers about NIABI as a conduit for reaching out to entrepreneurs and reinvigorating the sector. It also has become a platform for B2B/B2C transactions, where innovations from the sector are recognized and the best agribusiness incubator and incubatees are honoured with the NIABI awards.
Highlights & Achievements of NIABI 2012

- The Second Global Agri-Business Incubation Conference was host to 81 entrepreneurs with diverse profiles but a good mix of both first time and seasoned entrepreneurs, inclusive of an International delegation of 18 members from Malaysia, Philippines, Sri Lanka and six countries of Africa.
- Sam Pitroda, Chairman of the National Innovation Council stressed on the need for the application of ICT tools to take innovations in the sector to the next level. He also called for setting up a global school of ICT in Agriculture in India with the assistance of ICAR and DAC.
- 62 speakers from eight countries participated in sessions spread across three days. The speaker profile included incubation practitioners/professionals, agripreneurs, CEOs of agri-companies and funding agencies.
- Over the three days, there were 12 thematic sessions ranging from Innovations for competitive agribusiness sector to Funding & sustainability of business incubator to Opportunities for youth in agriculture & grassroots incubation.
- 38 members from the ten BPDs participated in the conference, apart from Vice Chancellors/ Directors of the parent body.
- *i2i: Innovations for Impacts* featured seven innovators from the agri sector who had brought out new, radical technologies that had the potential to go main-stream and bring a change to the sector. The featured incubatees shared their innovations and spoke about the support they received from their respective incubators.
- Padmabhushan Dr RB Singh was the Chief Guest of the Closing Session, called for partnerships between development agencies (national and international) to make an impovement for the agricultural sector.

Investor-Startup forum

The second edition of the Investor Forum had 20 start-ups pitching their case who were classified into medium and high funding categories. Held on the sidelines of NIABI 2012, the investors for this edition included - SEAF India Agribusiness International Fund, Small Farmers’ Agri-Business Consortium (SFAC), Technopreneur Promotion Project (TePP), YesBank, and Villgro.

Declaration of South-South Collaboration on Agribusiness Incubation

The South-South Collaboration on Agribusiness Incubation, chaired by Dr William D Dar, DG of ICRISAT, was held during NIABI 2012, to enhance agricultural development in India and Africa. In this regard, a joint declaration was signed by NIABI and FARA-UniBRAIN to collaborate on areas like:

- Facilitation of mutual technology transfer and commercialization of agri-based products between India and Africa.
- Strengthening capacities of African agribusiness incubators including managers, mentors and leaders.
• Soft landing of business and Facilitation of linkages for agribusinesses seeking partnerships and export opportunities
• Identifying opportunities and leveraging resources for scaling up of agri-business incubators and their services through national and international networking.

ZTM-BPD of CIFT Opens its own Incubation Facility

The business incubation facility of the ZTM-BPD Unit of CIFT was inaugurated by Dr S Ayyappan, the Director General, ICAR, on 5 April 2012. With its own incubation facility fully ready, the BPD Unit of CIFT will be able to provide an integrated service package of technology, work space, shared office services, specialized equipments and value added business services. The office facilities will be made available to 9 incubatees for a maximum period of three years. The renovated Pilot Plant Complex with state-of-the-art generic semi-commercial production facilities for fish and meat based products was also inaugurated by the DG and will be made available to the incubatees.
Declaration for establishment of Global Agri-Business Incubation (GABI) Network

A declaration of cooperation and partnership between FARA-UniBRAIN, NIABI, Malaysian Agricultural Research Development Institute (MARDI), SEEDS initiative of Philippines, and Rural Enterprise Network of Sri Lanka was signed up on the sidelines of NIABI 2012, to establish the operational framework of the GABI Network. The specific areas of cooperation were:

- To create an enabling environment for agribusiness incubation for smallholder agriculture
- To resource the agenda through PPP
- To support regional and local agribusiness networks to improve the ease of doing agribusiness.
The Business Incubation Centre of the ZTM-BPD Unit of NIRJAF was inaugurated by Dr S Ayyappan, the Director General of ICAR on September 26 2012. In his Chief Guest Address, the DG stressed upon the need for commercialization of technology and concluded on a note that output oriented research through exploitation of new possibilities of outsourcing is needed to reach a new horizon.

An exhibition for demonstration of the most commercially potential technologies developed by the 16 catchment institutes under ZTM-BPD Unit was also organized on the sidelines. The exhibition was inaugurated by Dr Bangali Baboo, National Director, of NAIP in presence of Dr. M. M. Pandey, DDG (Engg.), ICAR, Dr. B. S. Mahapatra, Director, CRIJAF, Barrackpore, West Bengal, Dr. S. Mauria, ADG (IP & TM), ICAR, Dr. P. S. Pandey, National Co-ordinator, Component-1, NAIP, and a host of other esteemed guests and dignitaries. The ITMU ICs of the zonal catchment institutes were also present to grace the occasion.
NIABI 2012 Awards

The winners for the NIABI awards were selected after careful scrutiny of the applications by a three-member panel. The following were adjudged as the frontrunners:

- The Best Agri-Business Incubator award was won by ZTM-BPD units of IARI and IVRI.

- The Best Agri-Business Incubatee award was won by Mr Gurubagh Singh of All India Development Trust (incubatee of ZTM-BPD, IVRI) and Mr Sultan Singh of M/s Sultan Fish Seed Farm, Karnal (incubatee of ZTM-BPD, CIFT)
Sponsors of NIABI 2012

Gold Sponsors

- Small Farmers’ Agri-Business Consortium (SFAC), Government of India

- Ministry of Food Processing Industries (MoFPI), Government of India

Silver Sponsors

- Technology Development Board (TDB), Government of India

Session Sponsors

- National Research Development Corporation (NRDC), Government of India

- Carborundum Universal Limited (CUMI), The Murugappa Group

Promotion Partners

- Associated Chamber of Commerce and Industry of India (ASSOCHAM)

- TiE-CON, Delhi NCR

- kisan.com

- meraevents.com
Photographs

A view of the audience at NIABI 2012

Dr Bangali Baboo, National Director of NAIP welcomes Dr Kalam

Declaration for establishment of Global Agri-Business Incubation (GABI) Network

kolkatta-Nirjaf inauguration
Co-Business Initiatives in NIABI

UniBRAIN agri-incubators in Africa in partnership with NIABI

The Agri-Business Incubation (ABI) program of ICRISAT had been chosen as a partner for the Universities Business and Research in Agricultural Innovation (UniBRAIN) project of the Forum for Agricultural Research in Africa (FARA). Funded by the Royal Danish Agency (DANIDA), the project involves setting up six Agribusiness Innovation Incubator Consortia (AIIC) in five African countries of Mali, Ghana, Kenya, Uganda and Zambia.

The UniBRAIN project is unique as each AIIC comprises of University, Business, and Research partner and focuses on agricultural value chain, specific to one crop. The ABI program has been entrusted with the handholding and mentoring the AIICs in their initial growth stages by providing technical guidance, training the manpower in business incubation operations and help in facilitating client flow into the incubator. This has also opened up a platform for the BPD Units in NIABI to engage with the AIICs to leverage their technologies and competencies for establishing these value chain based incubators. The incubators and activities done are given below:

- Agri-Business Incubation Trust (AgBIT) of Zambia, proposed as a value chain incubator on fruits and vegetables. ABI-ICRISAT’s preliminary field study helped in refining the business plan.

- In Ghana, the Creating Champions in Livestock Agribusiness (CCLEAr) of the Centre for Scientific & Industrial Research (CSIR) supports entrepreneurship in livestock. Dr Rahul Srivastava, Business Manager (former), of the ZTM-BPD Unit of IVRI assisted ABI-ICRISAT in developing the plans and operations for the incubator.

- AfriBanana Products Ltd (ABP), Kyambago University’s agribusiness incubator in Uganda focuses on enhancing banana production and banana by-products through value addition and trade. Mr Bhubesh Kumar, Business Manager the BPD Unit of TNAU did the market work and helped in refining the business plan.

- The business plan refinement activities of the Consortium for enhancing the University Responsiveness to Agribusiness Development (CURAD) incubator of Makerere University, Uganda, were done by ABI-ICRISAT in partnership with Dr George of Pan-African Agribusiness and Agro-Industry Consortium (PanAAC).

- The Sorghum Value Chain Development Consortium (SVCDC) Kenya, focuses on smaller dryland food grains. ABI-ICRISAT’s preliminary field study helped in refining the business plan.

- The West African Agribusiness Resource Incubator (WAARI) Mali, focuses on agro-forestry products. ABI-ICRISAT’s preliminary field study helped in refining the business plan.
International Technical Consultancy on Thermal Validation at M/s. Horizon Fisheries Pvt. Ltd, Maldives

The ZTM-BPD Unit of CIFT provided technical consultancy to Horizon Fisheries Pvt. Ltd., a leading fish processing and marketing company in Maldives. The activities of the company include collection, storage, processing and marketing of tuna and tuna related products, which are supplied to major international markets in Thailand, China, Japan, Iran, Oman and New-Zealand.

The scientific team from CIFT visited Maldives and conducted thermal validation studies during the period 23 April - 2 May 2011. The consultancy was carried out as per the standard guidelines of National Food Processors Association, USA and the Campden and Chorleywood Food Research Association, UK. The team also provided training to the management and technical staff members of the company on various aspects of thermal process validation, retort operation and optimization of process for thermal processing of products from tuna in retort pouches and rigid cans.

Consultancy on Corporate Farming in Zambia

The BPD Unit of TNAU provided its technical consultancy services to M/s Shapoorji Pallonji & Co Ltd, during September 2012 for its large-scale corporate farming project in Zambia. The company, which has stakes in the TATA Group, was looking at the feasibility of leasing large stretch of land for corporate farming in a town known as Solwezi, in the North Western province of Zambia. The BPD Unit conducted soil suitability studies in association with the Zambia Agriculture Research Institute (ZARI) at the project area.
Zambia. The BPD Unit conducted soil suitability studies in association with the Zambia Agriculture Research Institute (ZARI) at the project area.

**BPD Unit of TNAU Offers Technical Consultancy for Ishinn Organics**

M/s Ishinn Organics Pvt Ltd is an incubatee of the BPD Unit of TNAU. The company is into production and sales of organic products; its flagship product is an anti-transpirant called Green Gold, which is being exported to M/s Agricare based in Vietnam.

The Unit provided technical expertise for Ishinn Organics to improve its product and business consultancy to increase their quantum of exports. The Business Manager the Unit along with M/s Ishinn Organic Exports officials, Mr G Myilsamy, Managing Director and Mrs Dhanamani, Director visited Vietnam to conduct the technical consultancy study and provided all the required technical and business expertise.

**NIABI 2012 Coverage**

*Hum hongey kaamyab..*  
Mr Sulthan Singh, the Best Agribusiness Incubatee of 2012 at NIABI 2012.

*Investor-Startup Forum*  
Ms Louise de Klerk, CEO of Timbali Business Incubator in one of the sessions at NIABI 2012.
AIDT-Best Agribusiness Incubatee for 2012 at NIABI 2012

Dr Kalam with Ramesh Kongara

Forging ties through South-South collaboration-ICAR, FARA, MFPI and ICRISAT

Mr Ralph von Kaufmann, Facility Coordinator, UniBRAIN project of FARA

Dr Kalam lighting the lamp. Along side are Dr William D Dar, Director General of ICRISAT and Dr HS Gupta, Director of IARI

Padmashree RB Singh makes a point in the Closing Session of NIABI 2012

The GABI partnership

Dr HK Mittal, Adviser, Member Secretary of NSTEDB, Department of Science and Technology, Government of India
Entrepreneurs at the Agribusiness mela organized by ABI-ICRISAT

The Agri-Business Incubation (ABI) program of the Agribusiness & Innovation Platform (AIP) conducted an Agribusiness mela (meeting) on 2 August 2012 at ICRISAT, Patancheru. The mela was primarily aimed at promoting agribusiness ventures and providing a platform for sharing and exchange of ideas and innovations in availing incubation services and funding assistance.

A key highlight of the mela was the presence of Hyderabad Angels, an angel investor community from Hyderabad, who partnered with ABI-ICRISAT, along with the TDB of the Department of Science & Technology, Government of India and the NAIP to promote agribusiness ventures.

The event had 63 registered participants. Thirteen proposals were screened, of which seven were selected for funding by the Angels and under TDB seed grant scheme. Nine agribusiness proposals were also selected for incubation support through NIABI, for technology transfer and scientific support from the BPD Unit.
The investors interact with BPD managers and agripreneurs via video conference

The second edition of the NIABI Best Practices Seminar Series, aimed at promoting the best practices in entrepreneurship and innovations, was conducted by ABI-ICRISAT for the BPD clients and staff on 10 September 2012. Titled, Funding opportunities for start-ups in social enterprises, the seminar was attended by 11 clients from ABI-ICRISAT at the Telepresence Room in ICRISAT, while 20 entrepreneurs from the incubators located at TNAU, CIFT, JNKVV and AAU joined the seminar via video conference.

The speakers, Ms Ritu Verma from Ankur Capital and Mr Saurabh Lahoti from Ennovent, discussed funding modalities and effective ways of pitching a prospective venture before venture capitalists (VCs) for funding support. Later, the investors had one-on-one discussions with the clients at ICRISAT and other incubators, which helped in clarifying how the clients should remodel their business plans to attract funding.

The video of the same was later circulated across NIABI.

NIABI Business Incubation Training Program for BPD Staff at Technopark, Thiruvananthapuram

As part of the capacity building activity for the staff of the BPDs, ABI-ICRISAT conducted a training program on Business Incubation at the Technopark-Technology Business Incubator (T-TBI), in Thiruvananthapuram during 18-21September 2012. ABI developed and organized the program along with the Indian STEP and Business Incubators Association (ISBA), the Asia Pacific Incubator Network (APIN), and T-TBI. Twenty-two participants from NIABI and ISBA participated in the training.
Session topics included, among others: basics of business incubations; technology evaluation; Intellectual Property Rights and business incubation; funding for start-ups; financial management of the incubator; and incubator client management. The participants were also exposed to various team building activities and games, apart from visits to client spaces in the T-TBI to get a hands-on experience of how to manage the incubator and its clients.

Following the training program, participants visited the newly inaugurated ZTM-BPD incubator space at CIFT and India’s first Telecom Business Incubator-Startup Village, at Kochi on 22 September. A one-day review meeting of the BPD units was also conducted by the National Coordinator, Component I of the NAIP.

**Seed Business Incubation Workshop for Farmers**

Two hundred farmers came together in the one-day Seed business incubation workshop, organized by the BPD Unit of BAU on 2 June, 2012 at Upparbandha village in Ghatshila, Jharkhand.

The workshop highlighted the achievements of the seed business farmers and enrolled new farmer entrepreneurs for next season’s seed production. The Director of Seeds and Farms, BAU, presented on the opportunities for seed business ventures in Jharkhand, while the IARI officials presented on the formation of the Beej India Producer Company and its success story and also elaborated about the procedures for setting up a producer company.

The meeting also had the participation of the District Agricultural Officer, who spoke about the various Government schemes for promoting seed business ventures, while the District Development Manager of the National Bank for Agriculture and Rural Development (NABARD) presented about the various programs that is operated by the Bank to promote seed business activities in Jharkhand.
National Seminar-cum-Workshop on IT Mediated and Technology driven Agricultural Development

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Grassroots Innovations and their Scope for Commercialization

A unique initiative for the state of Jharkhand, a one-day workshop on Grassroots Innovations and their scope for commercialization, saw various stakeholders from the Government, scientists, students and innovative and progressive farmers coming together to promote and encourage innovators and innovations from the grassroots level. This workshop was organized by the BPD Unit of BAU on 28 June 2012.

The platform brought together 70 delegates for discussion on the subject. The key speakers included Dr Vivek Kumar, National Coordinator (Scouting) of the National Innovation Foundation, Ahmedabad who presented on Scouting, documentation, evaluation and commercialization of grassroots innovations; Mr Rajiv Ranjan Kumar, Social Upliftment Trust, presented on Efforts in Grassroots Innovations made in Jharkhand. ICAR recognized farm innovators– Sajid Ansari (Rice grain filter); Minu Mahto (Tower lift irrigation for undulating topography); and Sajid Ansari (Potato sorter machine), also made presentations about their innovations.
Business Opportunity Workshop on Exploring New Horizons in Animal & Avian Nutrition Technologies

The ZTM-BPD unit of IVRI organized a one day business opportunity workshop for corporate and research institutions for jointly working and exploring new horizons in animal and avian nutrition, on 25 August 2011 at Izatnagar.

Apart from IVRI, the Central Avian Research Institute (CARI), Bareilly; Central Sheep and Wool Research Institute (CSWRI), Avikanagar participated in the workshop. From the corporate sector, six leading animal nutrition manufacturers participated-M/s MARS International India Pvt. Ltd., Hyderabad; M/s Kemin Industries Pvt. Ltd, Chennai; M/s Plus Formulations, Karnal; M/S Khamdenu Feeds, Saharanpur; M/s Intas Pharmaceuticals Ltd. Ahmadabad; and M/s Godrej Agrovet, Mumbai.
Two technical sessions were held during the day:

• **Technical session-I**

  The concerned technology leaders from IVRI, CARI and CSWRI gave brief presentations of animal and avian nutrition technologies that were ready for commercialization.

• **Technical session-II**

  Entitled Corporate R&D in Animal and Avian Nutrition, the session had the private sector participants making brief presentations, followed by discussions on specific area/need. The following recommendations were made at the end of the discussions:

  ✓ Market driven research from IVRI should be promoted in close collaboration with corporate organizations.
  ✓ Public Private Partnerships in all possible dimensions of technology development, up-scaling and refinement should be encouraged with the help of the ZTM-BPD Unit of IVRI.
  ✓ Linkages with leading corporate houses should be promoted to bridge the gap and fulfill the technology needs.
  ✓ Innovations and new product development should be promoted through the ZTM-BPD Unit at nominal charges.

  The workshop had some positive outcomes for the ZTM-BPD of IVRI:

  ✓ M/s Mars International India and M/s Intas Pharmaceuticals showed interest in taking up the life-time membership of ZTM-BPD to avail of its business support services.
  ✓ M/s Kemin Industries confirmed that they will license the Make feed dairy software of CARI.
  ✓ The contract research project between M/s Mars International India and IVRI got processed.
**Celebrating National Technology Day with ICAR DG**

National Technology Day was celebrated by the ZTM-BPD Unit of IVRI by signing Memorandum of Understanding (MoU) with three corporate houses, for technology transfer of six vaccines and diagnostic technologies.

The meeting was held on 11 May 2012 at Krishi Bhawan, New Delhi was chaired by Dr S Ayyappan, the Director General of ICAR. The memoranda of understanding (MoUs) were signed by Dr MC Sharma, Director, IVRI with the heads of M/s Vivimed Labs, Hyderabad; M/s Indian Immunological Ltd., Hyderabad; and Institute of Animal Health & Veterinary Biological, Bangalore.

**Training Program on Effective Business Management of a Producer Company**

The BPD Unit of JNKVV organized a training program for the key officials of agricultural producers companies of Madhya Pradesh, on Effective Business Management of Producer Company in collaboration with Madhya Pradesh District Poverty Initiative.

Project (MPDPIP). Ninety trainees attended the program which was conducted in two phases: 11-13 January 2012 and 23-25 January 2012.

**Bio-Fertilizers Agribusiness Development Camp**

An Agri-business development camp on bio-fertilizers was conducted on 10 January 2012 by the BPD Unit of JNKVV. Participants from different government, corporate and cooperative firms and individual entrepreneurs were present and expressed interest in the bio-fertilizers business.
Entrepreneur Development Programs (EDP) for Start-Ups at ZTM-BPD, IARI

EDP on Plant Tissue Culture

A five-day EDP program was conducted from 19-23 December, 2011 on plant tissue culture at IARI. There were a total of ten participants from Andhra Pradesh, Gujarat, Uttar Pradesh, Tamil Nadu, Maharashtra, Bihar and Delhi-NCR. The training program course module consisted of theoretical and practical exposure, which included lectures covering the overview of the tissue culture industry, the basic concepts and requirements, technical know-how of in vitro initiation, establishment and initiation of cultures and its scope.

Practical hands-on experience was also given to the trainees along with visits to the Centre for Protected Cultivation (CPCT), The Energy and Resources Institute (TERI), and Saveer Biotech for giving overall scope and possibilities of entrepreneurship in horticultural crops with exposure on hardening facility.

EDP on Bio-fertilizer and Composting Methods

The EDP was held during 23-28 January 2012 at IARI, with the participants being provided training on production of bio-fertilizer and maintenance of pure microbial culture along with other topics of enumeration, isolation, mass production, residue management, evaluation, analysis and quality management of compost.

EDP on Protected Crop Cultivation Technologies

The EDP was held at the Centre for Protected Cultivation (CPCT) and was held on 13 March 2012. Participants were provided with practical skills under actual field conditions.

EDP on Hydroponics

The five day EDP on Hydroponics was conducted by ZTM-BPD incubatee Mr Deepak Gupta, from 8-15 February 2012. The incubatees were provided practical exposure on hydroponics by the team from Nuclear Research Laboratory, IARI.
SAU ICAR CII Industry Meet 2012

> The BPD Unit of CCSHAU organised the SAU ICAR CII Industry Meet 2012 for the Northern Region on 4 September 2012 at CCSHAU. More than 300 participants, including representatives from SAUs, BPDs, Corporate, Government Departments, and entrepreneurs registered for the meeting.

World Bank Reviews

Handholding and Mentoring of BPD Units of NARS Project

A two member team from the World Bank comprising of Mr Manivannan Pathy, Senior Agricultural Specialist, South Asia Sustainable Development Department and Mr Mohinder S Mudahar, Economic Adviser and International Consultant (Agriculture, Agribusiness, Rural Development and Disaster Risk management) along with Dr RK Goyal, National Coordinator (Component II) of NAIP visited the ABI program at ICRISAT on 6 June 2012, to review the Handholding and Mentoring of BPD Units of NARS Project of the NAIP, for which ABI program is the lead centre.

Dr KK Sharma, CEO of the Agribusiness and Innovation Platform (AIP) briefed on the activities of ABI that have been carried out under the NAIP project, while Mr SM Karuppanchetty presented on the project progress and the impact created by the BPD Units on agribusiness, farming and scientific community. He also proposed the future plans under the project to sustain the operations of the ten BPD Units.

The presentation was followed by an interactive session between the review team and the BPD team of AAU, TNAU, JNKVV and CIFIT via video conference. After the review meet, Mr Mudahar had the following remarks for the work done so far.
**Taksay (Taknique se Vyavsay): News Bulletin from ZTM-BPD, IARI**

TAKSAY (Taknique se Vyavsay) is a news bulletin published by the ZTM-BPD Unit of IARI, which focuses on promoting technologies and technology transfer from North Zone institutes, under the ZTM-BPD, popularizing the services of the agribusiness incubator at IARI, creating public awareness on Intellectual Property Rights (IPR) protection, and publicize Entrepreneurship Development Programs (EDPs) in the Northern Region.

The first edition of the news bulletin came out in November 2011.

**Seminar on Intellectual Property Rights @ AAU**

A seminar on Intellectual Property: Rights, Patent, Trademarks, Copyright, Industrial design and Geographical indication was organized by the BPD Unit of AAU, in partnership with Mark Patent Org, Ahmedabad. This was organized at AAU on 9 December 2011, to spread awareness among the scientists of the University.

**NGOs Partnership Meet at AAU**

The BPD Unit of AAU organized the AAU-NGOs Partnership Meet on 29 June 2012 at the University premises. Around 15 reputed NGOs from across Gujarat participated in the meeting. Discussions with some of them are in progress for commercialization of low cost technologies.

**MSME Management Committee Meeting at AAU**

An MSME Management Committee meeting for preliminary screening of innovations received under the MSME-Incubator Support Scheme was organized by the BPD Unit of AAU. Six innovations were approved and recommended by the Committee for the next level of screening, to be done by the MSME Ministry at New Delhi.
Technology Showcase at IVRI

A media meet was organized by the Division of Extension Education and the ZTM-BPD Unit of IVRI on 27 February 2012 to showcase technologies that were ready for commercialization from IVRI. The meeting was chaired by the Director-cum-Vice Chancellor of IVRI.

Capacity Building-cum-Training Program

A Capacity Building cum Training Program was conducted at the livestock products technology lab of IVRI by its ZTM-BPD Unit of IVRI for MSc Food Technology students of the Allahabad University during 11-13 June 2012.

Sensitization Workshop for Agricultural Students

A career sensitization workshop was organized by the BPD Unit of JNKVV for the agricultural students at the College of Agriculture, Rewa, on 7 January 2012. The workshop elaborated more on the various opportunities and challenges that are open for graduates should they wish to pursue agribusiness sector as a career option. Speakers included representatives from banks, successful entrepreneurs from the agribusiness sector, apart from the Principal Investigator and Business Manager of the BPD Unit.

Entrepreneur/Industrial Motivational Program

A one day entrepreneurial/industrial motivational program in collaboration with the Ministry of Micro, Small & Medium Enterprises (MSME), Government of India (GoI) was organized by the BPD Unit of CCSHAU, on 29 November 2011 at CCSHAU. More than 100 participants registered themselves for the program including farmer entrepreneurs, student entrepreneurs and select scientists from various departments who presented about potential technologies for commercialization.

Entrepreneurship Development Campaign @ CCSHAU

The Department of Microbiology, the Department of Molecular Biology and Biotechnology, the Department of Foods & Nutrition and the Department of Food Science & Technology in partnership with the BPD Unit of CCSHAU organized an entrepreneurship development campaign on biotechnology, liquid bio-fertilizers and food products from 3-7 February 2012. Fourteen entrepreneurs were trained during the campaign.
**Sensitization Program on Food Safety**

A sensitization program on food safety issues was organized by the BPD Unit of CCSHAU in collaboration with the MSME and GoI on 9 August 2012 at Hisar. The event saw more than 80 participants coming together.

**First NIABI Best Practices Seminar Series**

The inaugural edition of the NIABI Best Practices Seminar Series on Entrepreneurship & Innovation was held by the ABI program at ICRISAT, Patancheru on 12 October 2011. The seminar series is intended as a platform for budding entrepreneurs to get an opportunity to learn from the successful entrepreneurial journey of others.

Dr Dinabandhu Sahoo, Professor at Delhi University; Mr Satyajit Singh, CEO of Shakti Sudha Industries and Mr Samar Gupta, Owner of Trikaya Agriculture were the speakers for the inaugural seminar.

Each of them had made the difficult journey of entrepreneurship, full of twists and turns and tackled the setbacks in their own ways, to emerge successful in their chosen field of business and proved to the world that “if you can dream it.... you can do it.”

The seminar was broadcast via videoconference to BPD Units of CIFT, JNKVV, TNAU and AAU and had total of 73 participants.

**NIABI-SFAC Funding Camps for Agribusiness Start-ups**

The ABI program of ICRISAT had associated with the Small Farmers Agri-business Consortium (SFAC) to promote SFACs Venture Capital Scheme for agribusiness development.

To promote the Scheme, ABI conducted 10 agribusiness camps across the country with assistance of the BPD Units of NIABI. The camps provided yet another opportunity for the BPD Units to highlight the impact that has been created in the agricultural sector since the inception of NIABI, in terms of technology commercialization and agri-entrepreneurship development across the nation.

Overall, 1023 entrepreneurs and 42 nationalized banks participated in the camp, apart from NIABI mentors, ABI and BPD officials. A total of 128 proposals were screened, of which 56 agribusiness ventures worth Rs 99 crore have been recommended to SFAC for funding assistance through the Scheme.

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NIABI @ ISBA 2012

The ABI program, along with BPD Units of AAU and CIFT represented NIABI at the 6th annual conference of the Indian Science and Technology Entrepreneurs Parks (STEPs) and Business Incubator Association (ISBA). Setup in 2004, ISBA is the premier business incubator association in the country which was formed with the objective to promote, encourage and help the national agenda of business incubation through institutional mechanisms such as the STEPps, and Technology Business Incubators (TBIs) and also to function as a mentor and facilitator for the incubators setup in the country.

Held during 17-19 March 2012 at Pune, Maharashtra, the conference, with the theme on Business Incubation: The greatest innovation for societal development, soon became the platform for promoting business incubation activities in the country through exchange of information, sharing of experience, and networking assistance among Indian business incubators, STEPps and other organizations engaged in the promotion of start-up enterprises.

The conference was attended by about 70 incubator managers, over 100 incubatee companies, CEOs & support organizations, and about 50 international participants from Asia, Africa, Brazil, Europe and the USA.

NIABI strengthens South-South ties at the EMRC AgriBusiness Forum

NAIBI explored South-South collaboration and funding opportunities to enhance the number of agribusiness incubators in Africa at the EMRC AgriBusiness Forum held on 16-19 October 2011 at Johannesburg, South Africa. The event was aimed at strengthening the agri-food sector in the continent by encouraging partnerships with the private sector, and exchanging best practices and attracting investments.

To strengthen South-South collaboration, delegates from NIABI, India had discussions with delegates from UniBRAIN-FARA to develop a framework for engagement. Soft-landing and technology sharing opportunities between India and Africa were also explored. The ABI program of ICRISAT also facilitated about 45 meetings between NAIP officials and business delegates from Africa and also with Agriculture Ministers from Rwanda and Uganda to explore opportunities for collaboration on global agribusiness incubation.

The team from NIABI also visited the Furntech Incubator in Johannesburg and the Timbali Technology Incubator in Nelusprit to know more about other agribusiness incubator models, for promoting agribusiness ventures.

Agro-Technology Promotion at AgriTech India 2012

The ABI program, along with BPD Units of CIFT and TNAU participated in a three-day agribusiness exhibition, AgriTech India 2012 during 25-27 August 2012 in Bangalore. The exhibition presented successful cases of overcoming technical constraints in enhancing crop production and productivity due to farmer’s lack of access to technologies and inputs, logistics and marketing.

The event attracted participants from 300 companies across 20 countries. The exhibition offered insights into farm mechanization, pre- and post-harvest management of food crops, food processing, marketing and retailing. It also presented cases of transforming farmers into rural agri-preneurs by adopting cutting-edge technologies to enable them to compete in the global markets. Amongst the visitors to the NIABI stall was the Chairperson, Commercial Agriculture Alliance, Nepal, who expressed interest in collaborating with the ABI program in facilitating the transfer of NIABI technologies to Nepal.
NIABI promoted at 6th conference on Krishi Vignan Kendras

The ABI program promoted NIABI at the 6th National Conference on Krishi Vignan Kendras (KVKs) jointly organized by the ICAR and JNKVV during 3-5 December 2011 at JNKVV campus in Jabalpur. The conference with the theme, Preparing farmers for secondary agriculture, was held with a view to giving secondary agriculture a boost to reduce post-harvest losses and allow farmers to get better returns from their harvest, create new job opportunities to retain rural youth in agriculture, and improve processing technologies to follow changing consumption patterns. The role of the KVKs in this endeavor was also explored.

Presentations were also made by BPD Units of IARI, IVRI, CIRCOT, CIFT, NIRJAFT and JNKVV. About 600 KVKs attended the conference which had over 1200 delegates deliberating on six themes; a presentation on NIABI was done by the ABI program on technology commercialization.

NIABI Technologies showcased at KISAN 2011

The ABI program along with BPD Units of CIRCOT, AAU and JNKVV participated in the five-day agri-fair, KISAN 2011 in Pune from 14-18 December 2011 to promote the activities of NIABI. Considered to be the largest agri-fair in the country, KISAN 2011 had more than 200 stalls and received more than 160,000 visitors. Around 260 people showed interest in NARS technologies and the support that NIABI offers to potential agripreneurs. The leads generated during the fair were passed onto the respective BPD Units in the Network.
Spotlight on agribusiness venture

**India’s first integrated zero waste agri-business venture, pioneered by CIFT’s incubatee**

Mr Sultan Singh is a progressive fish farmer-cum-entrepreneur from Bhutana village of Karnal in Haryana. He is also an incubatee of the ZTM-BPD unit of the Central Institute of Fisheries Technology (CIFT), Cochin, who started Sultan Singh’s Fish Seed Farm and Sultan Singh’s Food Court, to promote value added food products from fish. The ZTM-BPD unit supported the incubatee by imparting training in the production of such fish based value added products like fish nuggets, burger, fingers etc which are marketed under the brand name Fish Bite.

In 2011, with the support of the incubator, Mr Singh setup India’s first inland fish processing unit for the production of value added products from fish in Bhutana, with technical collaboration from the Fish Processing and Quality Assurance & Management division of CIFT. The unit, inaugurated by Dr S Ayyappan, the Director General of the ICAR, has a processing capacity of one tonne of fish per day, and was designed in such a way that even the waste from the processing cycle could be converted into fish feed, thereby setting a fine example of zero waste agriculture. The unit, also acting as a training centre for progressive farmers and scientists, is expected to improve the economic status of hundreds of families engaged in fish farming in the village ponds and other entrepreneurs in the region.

The incubator is currently engaged in providing further marketing assistance by establishing retail kiosks at Delhi, Punjab, Haryana and Maharashtra. In recognition of his entrepreneurial skills, Mr Singh won the Best Agribusiness Incubatee Award for 2012, at the 2nd Global Agribusiness Incubation Conference: NIABI 2012.
Tapak Bund: Liquid bio-fertilizers from Kemrock Agritech

Kemrock Agritech Pvt. Ltd. (KAPL) is an ISO 9001:2008 certified tissue culture laboratory, registered with the Agricultural & Processed Food Products Export Development Authority (APEDA) as a merchant exporter. Located near Vadodara, Gujarat, the laboratory has the most modern facility spread over 20 acres with State-of-the-Art Laboratory (11,000 sq. ft.), fully automated Green Houses (25,000 sq. ft.) and Net Houses (75,000 sq. ft.) with latest infrastructure like foggers, irrigation systems, etc. KAPL has 21 Class100 Laminar Air Flow Stations, Growth Rooms with movable racks and over 200 Trained & Semi-trained operators can produce over 10 million plants per annum. The laboratory focuses on producing and supplying tissue culture raised plants that display desirable characteristics such as excellent agronomic performance, high yields, true to type, uniform and disease free. Its mission is to bring prosperity to farmers by providing knowledge, technology & guidance and thereby being known globally for its products and services.

KAPL registered with the BPD unit at the Anand Agricultural University (AAU) and took the license for the liquid bio-fertilizer technology in January 2011. The scientists from AAU provided the training to officials of KAPL in bio-fertilizer mass production laboratories for a period of three weeks, with further scientific and technical support provided both onsite and offsite.

With the assistance of the incubator, KAPL could establish the unit within six months and by November 2011, had launched three variants of liquid bio-fertilizers-Tapak Bund N (Nitrogen Fixer), Tapak Bund P (Phosphate Solubilizer) and N Plus. The first year sale of the company was Rs. 24 lakhs and now, in its second year, the revenue has already crossed Rs. 27 lakhs. The company has covered the entire Gujarat market and is now planning to go pan-India.

Tapak Bund launched by

Kemrock, can be purchased

from agri-input dealers or, Agritech Private Limited,

Asoj, Taluka Waghodia, Distt. Vadodara

Phone: +91-2668-291452 | Fax: +91-2668-281159
Reach us

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<th>Incubator Address</th>
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<th>Business Manager</th>
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<td><strong>Indian Veterinary Research Institute (IVRI)</strong>&lt;br&gt; Business Planning &amp; Development Unit&lt;br&gt; Indian Veterinary Research Institute&lt;br&gt; Izatnagar 243122, Uttar Pradesh</td>
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<td><strong>National Institute of Research on Jute &amp; Allied Fibre Technology (NIRJAT)</strong>&lt;br&gt; Business Planning &amp; Development Unit&lt;br&gt; National Institute of Research on Jute &amp; Allied Fibre Technology, 12 Regent Park, Kolkata-700040, West Bengal&lt;br&gt; <strong>Email:</strong> <a href="mailto:dsfbau@rediffmail.com">dsfbau@rediffmail.com</a></td>
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<td><strong>Central Institute for Research on Cotton Technology (CIRCCT)</strong>&lt;br&gt; Business Planning &amp; Development Unit&lt;br&gt; Central Institute for Research on Cotton Technology&lt;br&gt; Adenwala Road, Matunga, Mumbai-400019&lt;br&gt; <strong>Email:</strong> <a href="mailto:ashokbhari@rediffmail.com">ashokbhari@rediffmail.com</a></td>
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