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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
• Horticulture
• Fisheries
• Agri-Engineering
• 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 Acquisitions 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
1. Indian Agricultural Research Institute (IARI)

The Indian Agricultural Research Institute (IARI) is the country’s premier national institute for agricultural research, education and extension. It has served the cause of science and society with distinction through its high class research, generation of appropriate technologies and development of human resources. In fact, the Green Revolution was born in the fields of IARI. Besides basic research, applied and commodity research gained great significance resulting in the development of popular high-yielding varieties of almost all major crops and their associated management technologies. This brought about an unprecedented increase in national food and agricultural production.

The Zonal Technology Management & Business Planning and Development Unit (ZTM BPD) is an IARI initiative in the agri-business sector under the National Agricultural Innovation Project (NAIP) of the Indian Council of Agricultural Research (ICAR).

ZTM BPD-IARI provides incubatee with support in infrastructure, technology/prototype development, research, funding, business consulting and facilitates a start-ups success.

ZTM BPD IARI Launch

ZTM BPD IARI was set up in December 2008 with the objective of introducing and establishing entrepreneurship in the agriculture sector. Twenty one institutions from different disciplines in agriculture from North India constitute the unit’s North Zone 1.

The unit went operational in March 2011. Its new premises was inaugurated by Dr S Ayyappan, Secretary, Department of Agricultural Research and Education (DARE) and Director General, ICAR, in the presence of Dr Bangali Baboo, National Director, NAIP; Dr HS Gupta, Director & Vice Chancellor, IARI; Dr Malavika Dadlani, Joint Director (Research), IARI; Dr RC Aggarwal, National Coordinator, NAIP; and guests from various related disciplines.
Facilities

Infrastructure Support
- 150 sq ft of office space on individual and dual sharing basis
- Essential furniture with internet and telephone connections
- Common facilities like fax, printer, newspaper, access to cafeteria, etc
- Conference room and secretarial support.

Operational and Commercial Support
- Referral to funding agencies/venture capitalist
- Promotion through platforms such as website, exhibitions, etc
- Guidance in business plan preparation
- Guidance in conducting market surveys and feasibility analysis
- Interaction with successful entrepreneurs.

Scientific Mentoring
- Advice from domain experts
- Training and skill development
- Guidance to set up independent production unit.

The infrastructure and support provided by ZTM BPD can be availed of at highly subsidized rents after fulfilling required conditions.

Facilities available at ZTM BPD IARI.

Some popular IARI technologies.
Technologies Available

- Male sterility restorer system in wheat
- Turnkey process of converting MAS using genes for leaf blight resistance and blast in rice and rust resistance in wheat
- Product development of available/licensed transgenes in desired genetic background in rice, wheat and cotton
- Open pollinated varieties (cauliflower, carrot and brinjal) and hybrid varieties (cauliflower and brinjal)
- Off-season vegetable cultivation techniques
- Rice hybrid Pusa RH-10; and rice varieties Pusa-1121, Pusa-1460 and Pusa-P-44
- PCR-based virus detection kit for Citrus Tristeza Virus (CTV), Indian Citrus Ringspot Virus (ICRSV), Citrus Yellow Mosaic Virus (CYMV), and Citrus Greening Bacterium (CGB)
- Pesticide residue analysis in food commodities
- Novel super-absorbent cellulosic hydrogels
- Novel biopesticidal formulation – Nematode-based Pusa NemaGel
- Pusa neem micro-emulsion-coated urea
- Neem Azadirachtin-based formulation for value addition to technical Azadirachtin
- Upscaling of biopesticides/biofertilizers
- Mobile feed block making machine, including mineral block making machine using molasses
- Pusa fruit drinks – jamun, lime, gooseberry, grapes and pineapple
- *Aspergillus niger* (strain AN 27)-based bioformulations (a) Kalisena SD and (b) Kalisena SL for management of soilborne diseases of plants.

2. Tamil Nadu Agricultural University (TNAU)

The Tamil Nadu Agricultural University (TNAU) came into being in 1971. Till 1946, the Agricultural College and Research Institute, Coimbatore, was the only institute for agricultural education in South India. In 1958, it was recognized as a postgraduate center leading to Masters and Doctoral degrees. The Agricultural College & Research Institute, Madurai was established in 1965. These two colleges formed the nucleus of the Tamil Nadu Agricultural University when it was set up in 1971.

TNAU signed an MoA with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, to establish an Agri-Business Incubator in the University. Known as Business Planning and Development (BPD) Unit, the Agri-Business Incubator was set up under the Directorate of Agri-Business Development, which is the first of its kind among State Agricultural Universities (SAUs) in the country and is funded by ICAR through NAIP of the World Bank and the Department of Science & Technology, Government of India.

BPD TNAU Launch

The Business Planning and Development Unit was launched on 7 August 2009. It aims at promoting entrepreneurship in agriculture and other allied areas. Budding entrepreneurs and start-ups are provided an array of services ranging from technology transfer to adding business value to technologies in order to groom them to become successful agro-entrepreneurs. It will commercialize technologies developed by the University and other research institutes through entrepreneurship development. It helps innovators in technology development, standardization and commercialization of their products and services.
**Facilities**

**Built-in Space**
- Office space: 750 sq ft
- Client/incubation space: 6,000 sq ft
- Lab space: 650 sq ft.

**Other Facilities**
- Business discussion room
- Common business centre
- Training hall (capacity of 40)
- Lobby.

**Facilities from Other Departments**
- Tissue culture laboratory
- Food processing line at the Post Harvest Technology centre
- Other laboratories.

**Business Incubation Services**

**Seed Ventures**
Seed business incubation is a newfangled program of BPD TNAU aimed at promoting rural seed business ventures so as to bridge the gap between demand and supply in the seed industry through public-private partnerships.

**Support Services**
- Business planning and development
- Capacity building
- Quality control

- Processing facility
- Branding and marketing.

**Farm Ventures**
TNAU being the leader in agricultural extension, BPD TNAU promotes farm ventures in contract, organic, and precision farming.

**Support Services**
- Business consultancy – planning and management of farms
- Technical consultancy – crop production
- Capacity building
- Market linkages.

**Innovation Ventures**
BPD TNAU identifies innovations and helps innovators in the development and standardization of products, field testing and commercialization.

**Support services**
- Technical consultancy for prototype development and standardization
- Quality/test certification of finished products/services
- Business consultancy -- detailed project proposals/reports, market research, etc
- Financial assistance from Micro, Small and Medium Enterprises (MSME) Scheme and Technopreneur Promotion Program (TePP) of the Department of Scientific & Industrial Research (DSIR) through ABI-ICRISAT.

**Food Processing Ventures**
BPD TNAU commercializes food processing technologies developed by the University, trains Self Help Groups (SHGs) and individual entrepreneurs in food processing technologies and facilitates establishment of food processing facilities.

**Support Services**
- Technology commercialization
- Capacity building

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*Dr R Ganesan, former Director, Agri-Business Development; Mr RMP Jawahar, President of ISBA; Dr Julian Webb, Facilitator, InfoDev Asia; Dr P Murugesan Boopathi, Vice-Chancellor, TNAU; Dr Annuar Mohd Saffar, President, Asian Association of Business Incubation; Dr P Subbian, Registrar; and Dr KK Sharma, CEO, AIP-ICRISAT at the launch of the incubator.*
• Market linkages for processed foods
• Technical consultancy to set up food processing units.

Biofuel Ventures

Spiralling opportunities for biofuel plantations combined with the expertise of TNAU opened up new avenues for BPD. TNAU to promote entrepreneurs in biofuels. Budding entrepreneurs are assisted in creating tie-ups with biofuel companies to set up large-scale energy plantations.

Support Services
• Business consultancy through project reports and feasibility studies
• Turnkey consultancy services
• Technology-based entrepreneurship development programs
• Transfer of technology.

Other Programs
• Commercialization of technologies and products
• TNAU-Private Seed Sector Research and Technology Consortium
• Consultancy services.

Technologies Available for Commercialization

- Coconut tonic
- Biotechnology products – cry 2Ai gene, DREB genes
- Sugarcane booster
- Groundnut rich
- Maize maxim

- Biomineralizer
- Insect egg removal device
- Herbal insect repellant (Acorus calamus 10D)
- Master trap
- Seed pelleting mixture
- Paddy mini combine harvester
- Banana clump remover

- Improved turmeric boiler
- Brinjal seed extractor
- Soil health software
- Milky and medicinal mushroom
- Seri dust
- Bottling of sugarcane juice
- Briquetting technology
1. Indian Agricultural Research Institute (IARI)

**Pusa NemaGel**

- NemaGel contains an indigenous insect-killer nematode *Steinernema thermophilum* that can kill a broad range of soil and foliar insect pests such as the diamondback moth, gram pod borer, rice borer, white fly, cabbage butterfly, cotton boll worm, tobacco caterpillar, cut worms, root grubs, desert locust, mole cricket, field cricket, rice grasshopper, red cotton bug, mustard aphid, and termites. It protects cereals, pulses, oilseeds, vegetables and fruit trees, and it is safe for plants, farm animals, non-target organisms, humans and the environment. NemaGel offers an effective two-in-one solution for the management of insect pests and water retention in agriculture.

**Methods of Application**

- Soil application
- Foliar application

**Technology Package**

- Seed culture of the bio-agent
- Rearing and multiplication
- Development of NemaGel

2. Indian Veterinary Research Institute (IVRI)

**Value-added Meat Product Technologies**

**Chicken Meat Chips**

- Chicken meat chips are a ready-to-eat, palatable and crisp snack with a storage life of four months at ambient temperature under nitrogen packaging
- Effective utilization of cheaper spent-hen meat.
- Contains nearly 29% protein compared to potato chips. Contains an indigenous flavor profile and is suitable for all age groups.

**Emulsion-based Chicken Products**

- These are value-added convenience and ready-to-eat processed chicken products for human consumption
- Emulsion-based chicken nuggets, patties, rolls, balls, frankfurters, etc., are made from meat and edible parts (skin, gizzard and heart) of aged/spent poultry. These products are safe, delicious, and nutritious, have an indigenous flavor profile and ensure effective utilization of low-quality meat.
**Emulsion-based Mutton Products**
- Emulsion-based meat blocks, nuggets and patties are processed from goat meat and byproducts along with dietary fibres. These are highly acceptable, tasty, and nutritious.

**Incorporation of Vegetables in Meat Products**
- Ensures effective utilization of tough and low-quality meat from different hen species
- Incorporation of seasonal vegetables significantly reduces the production cost of meat products
- Use of vegetables improves flavor, significantly reduces fat oxidation and improves microbiological and sensory qualities of the product during storage under refrigeration
- The technology can ensure a higher price to farmers, greater profit margins to meat processors, and cheaper, nutritious and highly palatable meat products to consumers.

**Hurdle Tech Meat Pickle**
- A ready-to-use food adjunct of animal origin with spiced bite-sized pieces, the meat pickle is suitable even for those who avoid excess salt and acidic products.

**3. Birsa Agricultural University (BAU)**

**Birsin and Birsol**
An invention in the field of antipyretics and analgesics, Birsin is a herbal formulation extracted from the bark and leaves of the medium-sized Charaigowra tree, containing no chemical preservative.

The intake of 10 ml of Birsin thrice a day relieves fever and bodyache. It contains a herbal preservative that aids in maintaining its quality. Birsin has been tested scientifically by pharmacologists and ayurveda experts and has been found to be safe to use.
Birsol is a herbal and aromatic pain relief oil. It is a mixture of many herbs. Massaging Birsol twice a day provides relief from chronic joint pain and arthritis. It is effective in local inflammation and does not harm the skin.

4. National Institute of Research on Jute & Allied Fibre Technology (NIRJAFT)

Dewaxed Decolorized Lac (DDL)

Coating of fruits is normally done through commercial waxing plants that can coat large amounts of produce ranging from lots of 100 kg to several tons.

Dewaxed decolorized lac (DDL) is dissolved in a solubilizing agent and stirred constantly on low heat. Additives like spreading and breathing agents are used in the formulation. The breathing agent creates a network-like structure that allows the fruit/vegetable to breathe; otherwise a continuous covering would effectively check all gaseous exchange and quickly bring about decomposition, rather than extending the storage life of the coated produce.

A lac-based coating was experimentally tried out on kinnow fruit on a commercial level at Abohar in Punjab.

5. Central Institute of Fisheries Technology (CIFT)

Fish Kure

Fish Kure is an extruded snack food. Usually, extruded products are prepared using cereal flour which is low in protein and deficient in some essential amino acids. By incorporating protein-rich fish mince instead of cereal, the resulting product is a protein-enriched snack.

Advantages of Extrusion
- Thermodynamically efficient
- Subjecting to high temperature destroys bacteria and anti-nutritional factors
- One-step cooking process that minimizes wastage
- Destroys fat hydrolyzing enzymes and those associated with rancidity.

6. Central Institute for Research on Cotton Technology (CIRCOT)

Particle Board

Particle board is a panel product produced by compressing small particles of wood while simultaneously bonding them with an adhesive. This is an innovative project that could add value to the cotton plant stalk biomass and thus increase the earnings of cotton farmers.
Technology Merits

- Potential availability of 23 million tonnes of cotton stalks as raw material which is akin to hard wood and a renewable source of raw material
- Can be cleaned and transported in the form of chips at a cost of ₹1500-2000 per tonne (with 10% moisture) compared to the current average price of bagasse at ₹2500 per tonne
- Particle boards from cotton stalks adhere to BIS specifications for density, bending strength, water absorption and screw/nail withdrawal.

Benefits

- Increase in cane yield: The average yield of sugarcane in India is 66.1 t/ha. Results have shown that foliar application of sugarcane booster increases cane yield by 20 to 25 t/ha.
- Application of sugarcane booster increases sugar yield by 1.4 t/ha.
- Sugar recovery increases by 0.5 to 1.0%.

7. Tamil Nadu Agricultural University (TNAU)

Sugarcane Booster

Sugarcane Booster is a mixture with a perfect combination of micronutrients and growth regulators. Field trials on the effect of sugarcane booster in improving yield and productivity levels have proven its efficacy.

8. Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV)

Multichannel Electronic Choke Detector for Tractor-driven Seed Drills

The multichannel electronic choke detector for tractor-driven seed drills has application in agricultural implements. It improves the efficiency of the seed drill by reducing gaps while sowing and reducing costs too. It also improves the efficiency and quality of the equipment, and reduces labor, input and material losses and resource usage.

Specifications

- Choke detection: Instantaneous
- Sensor: Optoelectronics
- Output: Audio and visual indication
- No. of channels: Nine (expandable)
- Power requirement: 6 Vdc, 200 mA
- Power supply: Through tractor battery or 6V, 3.5 Amp-hour rechargeable battery
9. Chaudhary Charan Singh
Haryana Agricultural University (CCSHAU)

Milk Products for Commercialization

Sugar-free Rasgolla
• Utilizes whey (byproduct) as a cooking and dipping medium
• Uses artificial sweetener instead of sugar syrup
• Best alternative for diabetics.

Hot Spiced Paneer
• Prepared using paneer cubes marinated in spice mix
• Shelf life of 15 days at room temperature
• Ready to serve.

Low-cholesterol Masala Paneer
• Contains 53-55% moisture, 23-26% fat, 17-18% protein, 2-2.5% carbohydrates and 1.5-2.0% minerals
• Cholesterol content reduced from 133.6 to 1.4 mg/100g
• Can be preserved for 15 days under refrigeration.

Low-cholesterol Burfi
• Developed using 50% less fat without affecting the burfi’s physico-chemical and organoleptic quality
• Ideal for the obese and those prone to hypertension and cardiovascular diseases
• Highly acceptable in taste.

10. Anand Agricultural University (AAU)
Continuous Basundi-making Machine (CBM)

CBM is a technology that has application in the agriculture and dairy engineering sectors.

It is an energy-efficient device that manufactures dairy products. It works on the thin film Scrapped Surface Heat Exchanger (SSHE) principle. The unit has a specially designed scraper assembly that leads to higher rate of heat transfer due to continuous scraping and formation of a thin
film on the heat transfer surface. The quality of the product made is better compared to the traditional product as the concentration of milk takes place at atmospheric pressure and sugar syrup dosing in the third SSHE of the concentration unit develops results in a typical pleasant caramel flavor.

CBM is a far cry from the energy intensive and laborious conventional manufacturing process where non-uniform heating and agitation, small batch sizes, high production cost and lack of product standardization are the order.

Let the basundis roll out!

The Network of Indian Agri-Business Incubators (NIABI) invites applications from experts in agri-business to mentor start-ups in the sector. Join the movement that could change the landscape of Indian agriculture.

Who could be mentors?
- Successful entrepreneurs
- Industry experts
- Technocrats
- Professionals
- Retired person/housewives.

Domain areas: Horticulture, agri-processing, agri-engineering, fishery, forestry, veterinary science and animal husbandry, dairy, textile, etc.

Functional Areas: Marketing, Finance including microfinance, legal, IPR, Consultancy, Entrepreneurship development, Incubation, etc.

What mentors get:
- Tangible and intangible benefits as per the agreement
- Recognition through awards
- Shortlisted by incubatees and public for creating successful ventures
- Shortlisted mentors will be adequately remunerated.

Send your resume and application form by email in the prescribed format available at www.niabi.in to helpdesk@niabi.in with the subject line “I want to be a mentor.”
Blooming Business Initiatives

IARI

- Maize Hybrid PEEHM-5 was commercialized to M/s Sri Laxmi Venkateshwara Seeds and M/s Sampoorna Seeds, Andhra Pradesh.
- Phosphate Solubilizing Bacteria (PSB), Azotobacter, Rhizobium and Blue Green Algae (BGA) technology was commercialized to M/s Sai Bio Organics, Punjab.
- Trichoderma-based formulation as bio-pesticide technology was commercialized to M/s Sai Bio Organics, Punjab.
- Gene Construct-Event for TOSPO resistance in tomato technology was commercialized to Advanta India Ltd, Andhra Pradesh.
- PRH-10 technology was commercialized to Nirmal Seeds, IFFSA and Indo-American Hybrid Seeds Pvt Ltd.
- Pusa fruit drink technology was commercialized to Alor Utshya, West Bengal.
- Modified atmospheric packaging for vegetables technology was commercialized to Alor Utshya, West Bengal.
- Plant virus detection kit technology was commercialized to Chromous Biotech, Bengaluru.
- Animal feed-block making machine was licensed to Standard Hydraulics, Gurgaon.
- A collaborative research project titled “Development of Irrigation Schedular-Programmable Systems” was done for Mechanical Engineering Research & Development Institute (MERADO), Punjab.
- Pusa 1460 was licensed to GEO Biotechnologies India Pvt Ltd, Bengaluru.

IVRI

Technology Commercialization

An MoU was signed between Indian Veterinary Research Institute, Izatnagar and Hester Biosciences, Ahmedabad on 8 March 2011 for technology Commercialization of Peste des Petits Ruminants (PPR) and Goat pox vaccines developed by IVRI, at ₹ 23 lakhs and ₹ 11 lakhs respectively along with 3.5% royalty. This is one of the highest revenue generating activities from commercialization of two technologies by any ICAR industry in a day.

Contract Research

Synchronized efforts by ZTM BPD IVRI Bengaluru campus and ICAR resulted in the signing of an MoU worth ₹ 1.71 crore on 12 December 2010 for contract research on Foot and Mouth Disease (FMD) vaccine.

Dr DN Reddy, Director, Global Research, Pfizer, along with Dr AP Singh, Manager, Regulatory Affairs (Pfizer) were very impressed with this initiative.

Consultancy Project

An MoU was signed in November 2010 with the Centre for Agricultural and Rural Development (CARD) on a consultancy project worth ₹ 5 lakhs towards training to set up semen freezing banks in Eastern Uttar Pradesh, India. Frozen semen production has high potential in Uttar Pradesh. It will lead to improvement in the genetic stock of local animals, thereby producing superior animals and higher milk yields that will contribute to the country’s milk production.
Business Incubation
Technology upscaling through IVRI’s Business Incubator Laboratory

A technology (a novel peptide as transfection agent for protein and nucleic acid) is under internal validation through the Business Incubator laboratory at IVRI.

Corporate Membership

M/s Rakesh Pharmaceuticals, Ahmedabad
M/s Vinayak Ingredients, Mumbai
M/s Margdarshak Financial Services Ltd, Lucknow
M/s Sainath Avian Specialities, Hyderabad.

TNAU
Commercialization of Solar Crop Drier Technology through M/s Reny Marketing

Tamil Nadu Agricultural University signed an MoU with Reny Marketing to commercialize the solar crop drier developed by the bio-energy scientists of TNAU. The MoU was signed by Dr R Ganesan, former Director, Agri-Business Development representing TNAU and Mr Gerald Irudayaraj, managing partner, Reny Marketing, an agri-input company based in Coimbatore.

The low-cost solar crop drier can be set up even on small farms. Entrepreneurs can establish such units in rural areas, which can then be leased out to farmers. Agro-producers can use the product on coconut, chillies and rosemary. Its usage has seen a marked improvement in product quality compared to using conventional drying methods.

Commissioning of Pearl Millet Processing Machinery

BPD TNAU facilitated the technology transfer of ready-to-eat food from pearl millet in February 2011. As part of the process, technology licensee Mr Venkatachalam was provided with the details of the said technology. The licensee requested BPD TNAU to facilitate the development of a commercial model of the pearl millet processing machinery.
BPD TNAU facilitated its fabrication for Mr Venkatachalam through its incubatee Mr Rajkumar, M/s Emral Tuneline Autotech India, Coimbatore. The machinery was tested and commissioned in March 2011 at the BPD unit.

**BPD TNAU Launches Entrepreneurial Hub at the Oilseed Research Station (ORS), Tindivanam**

BPD TNAU has spread its wings to the northern parts of the state of Tamil Nadu. It started a BPD Entrepreneurial Hub at the Oilseed Research Station (ORS), Tindivanam, which was inaugurated by Dr P Muruges Boopathi, Vice-Chancellor, TNAU on 30 March 2011. An entrepreneurship camp was conducted as part of the event, in which about 70 entrepreneurs took part. Ezhil Mushroom Growers Association, Tindivanam and Centre for Environment & Agricultural Development, Pondicherry have consented to enroll as members of BPD TNAU.

**BPD TNAU gets 2 in-house Incubatees**

- ISHNN Organics, Coimbatore
- M/s Provimi Products Pvt Ltd.

**AAU**

**Commercialization of Anubhav Liquid Biofertilizer Technology**

In January 2011, Anand Agricultural University signed an MoU with Kemrock Agritech, a Vadodara-based company belonging to the Kemrock Group, for the commercialization of liquid biofertilizer technology. The liquid product has a minimum shelf life of one year, is easy to use, convenient to transport, and suitable for drip irrigation and greenhouse technology.

To popularize the product, one lakh bottles of Anubhav Liquid Biofertilizers were supplied in over 18,000 villages throughout Gujarat as part of the Government of Gujarat’s Krushi Mahotsav during May-June 2010.
CIFT

- Chitin/Chitosan technology was transferred to M/s Excel India Bioproducts Pvt Ltd, Bhimavaram in May 2011 at a cost of ₹3 lakhs.
- The process knowhow for glucosamine hydrochloride was licensed to Matsyafed in 2010, at a cost of ₹1.65 lakhs.
- Matsyafed started the commercial production of chitosan in technical collaboration with CIFT, Cochin under the name “Chitone”.

Under the technical consultancy of CIFT, Kochi, a processing unit for the production of value-added products from freshwater fish was established at Karnal. The unit was inaugurated by Dr S Ayyappan, Secretary DARE and Director General, ICAR on 26 February 2011. The certified farm and processing unit, named Sultan Singh’s Food Court, is spread over 27 acres and has a capacity to process one ton of fish per day. The ZTM BPD unit and CIFT scientists have trained staff and provided them with technical guidance.

- Consultancy on thermal validation of canned products of fish worth ₹3 lakhs was taken up by Horizon Fisheries Pvt Ltd, Maldives during April 2011.

AAU and Kemrock Agritech agree on the commercialization of Anubhav Liquid Biofertilizer.

Dr S Ayyappan during the inauguration of Sultan Singh’s Food Court.
CIRCOT

Setting up Incubation Facilities

• ZTM BPD has created incubation facilities worth ₹ 150 lakhs consisting of computerized sample preparation machines, advanced fibre information system, hydraulic press for particle board and Stenter for textile finishing.

• The computerized sample preparation machine consists of a single-end sizing machine, warping machine and sample weaving machine. These machines are used to create woven designs on fabric. At present it is used for making demonstration samples with banana textile grade yarn as warp and cotton as weft for the NAIP project on A value chain on utilization of banana pseudostem for fibre and other value added products.

Technology Commercialization

Automatic Grooving Machine

The automatic grooving machine, a CIRCOT technology, helps in automatically imprinting helical grooves from one end of the leather roller to the other. It works on a 0.5 to 1Hp motor, reduces manpower and increases the efficiency of the ginning process. The automated process eliminates errors associated with the manual process.

Rubber Roller for Double Roller Gins

Conventional double roller gins use leather rollers whereas CIRCOT technology uses a rubber roller. Rubber rollers have low slippage of lint between the roller and blade and hence require less pressure to pull out fibre. This leads to reduced seed cut, short fibre content and seed coat neps, thereby improving lint quality.

CCSHAU

CCSHAU signs 6 MoUs with the private sector

During April 2011, the following MoUs were signed between CCSHAU and the private sector:

a. Non-exclusive license agreement for the production and marketing of wheat varieties signed with M/s Supreme Seeds and JK Agri Genetics Limited.

b. Non-exclusive license agreement for the production and marketing of bajra hybrids was signed with M/s Pacific Seed (India) Pvt Ltd and M/s Shiv Ganga Hybrid Seeds.

c. Non-exclusive license agreement for the production and marketing of milk urea detection technology was signed with M/s DKS Incorporate.

d. Non-exclusive incubation agreement for the pilot scale production of eco-friendly PHB towards production of bio-degradable plastic was signed with M/s DKS Incorporate.

A computerized sample preparation machine.

An automatic grooving machine for efficient ginning.
NIRJAFT

• Jute Stick Particle Board Technology was successfully commercialized to Trishna Jute Pvt Ltd, Dhubi Gram Unnayan Seva Samity, BKC Enterprise, and Diganta Jute Enterprise Private Limited.

• Jute composite technology was commercialized to Modern Construction company.

BAU

• A fully functional BPD BAU office was inaugurated on 8 October 2010 by Dr S Ayyappan, DG ICAR.

• Asset commercialization: An MoU was signed for operating and managing a poultry meat processing unit at an annual rental of ₹ 1 lakh and a 5% annual increment with M/s Lucky Charm Poultry Pvt Ltd.

• Three incubatees were enrolled
  • Mr Somvit Maji, M/s Lucky Charm Poultry Pvt Ltd
  • Mr Dileep Kumar, Giridih, 30-acre integrated farming system
  • Mr Prataap Narayan, Siladigh, Dal mill project
  • A student entrepreneur: Mr Rajiv Ranjan Kumar, milk marketing.
BPD TNAU wins the NIABI 2011 National Award for “Best Agri-Business Incubator”

Tamil Nadu Agricultural University’s BPD unit bagged the Best Agri-Business Incubator award this year. The award, given by the Network of Indian Agri-Business Incubators, was in recognition of the BPD unit’s overall contribution in fostering and nurturing agri-business ventures (start-ups).

Dr P Muruges Boopathi, TNAU Vice-Chancellor; Dr P Sivasubramanian, Director, Agri-Business Development; and Mr R Bhubesh Kumar, Business Manager, BPD Unit received the award from Mr N Raghuveera Reddy, Minister for Revenue, Relief and Rehabilitation, Government of Andhra Pradesh.

After receiving the award, the Vice-Chancellor informed that the BPD unit at TNAU was supporting 22 entrepreneurs, had successfully commercialized five technologies such as solar crop drier, banana pseudostem processing technology, herbal insect repellent, etc, and introduced four products.

NVA Fellowship for Aakruthi Agricultural Associates of India client

Mr A Mallikarjuna, an entrepreneur with Aakruthi Agricultural Associates of India (AAAI) was conferred the Jamsetji Tata National Virtual Academy (NVA) Fellowship, instituted by the MS Swaminathan Research Foundation (MSSRF).

TNAU incubatee wins NIABI 2011 “Best Incubatee Award” for his Venture Emral Tuneline

Mr Rajkumar, an electrical engineer, developed a mobile-based irrigation system that enables a user to operate an irrigation pump using a mobile phone from any part of the country. The product is being used by around 1000 farmers in Tamil Nadu. BPD TNAU provided services to the client with regard to IP and marketing. He also won the MSSRF award in 2005, which recognizes specific abilities possessed by individual social workers and their commitment to the progress of the village. (Read story on page 31.)

The TNAU team receiving the NIABI award for Best Agri-Business Incubator from Mr Raghuveera Reddy, Minister for Revenue, Relief and Rehabilitation, Government of Andhra Pradesh.

Mr Rajkumar (second right) and the TNAU team receiving the Best Incubatee Award from Mr Raghuveera Reddy and ICRISAT Director General Dr William D Dar.
Events Organized by NIABI

NIABI 2011 -- Global Agri-Business Incubation Conference

The two-day NIABI 2011, Global Agri-Business Incubation Conference, was hosted by ICRISAT- Patancheru from 8-10 March 2011. As affirmed by over 170 participants from India and other countries, the conference strengthened the capacities of agri-business incubators by networking with policymakers and funding agencies for policy and financial support.

Co-sponsored by NAIP of ICAR and ICRISAT, NIABI 2011 aimed to create global awareness, build competencies in agri-business incubation among entrepreneurs, and establish global partnerships. The conference included 10 sessions, 45 speakers from 10 countries, and an agri-exhibition of 10 BPD units under NIABI, along with 6 other start-up ventures.

Snapshot of NIABI 2011- Global Agri-Business Incubation Conference

ICRISAT DG Dr William D Dar addressing the NIABI 2011 conference.

ICAR DG Dr S Ayyappan addressing NIABI 2011.
Dr Bangali Baboo addressing NIABI 2011.

Dignitaries at the inaugural of the exhibition.

Ms Anuradha Ramachandran, Principal Investor, Venture East.

Mr Jinesh Shah, Partner, Omnivore Capital.

Ms Ana Isabel Vargas, Coordinator, Agronatura Science Park, CIAT, Colombia.

Dr RC Agrawal, National Coordinator, NAIP.

Mr Raghuveera Reddy, Minister for Revenue, Relief and Rehabilitation, Government of Andhra Pradesh, speaks on the occasion.

Agri-business is the way of the future, asserts ICRISAT DG William D Dar during the valedictory meet.

Dr Ralph von Kauffmann, Coordinator, UniBRAIN, FARA, Ghana.

Mr Rami Reddy, MD, BR Cooking Sprays.

Mr Raghavendra Prasad, MD, Wifin Tech.

Mr Dr Ganesan Balachander, CGIAR, Consortium Board Member.

Mr Paul Basil, CEO, Villgro.
Mentors Orientation and Seminar on Best Agri-Business Practices

ABI-ICRISAT, as part of its NAIP Project on Handholding and mentoring of BPD units of NARS, kickstarted the NIABI Mentors’ Orientation Program with a seminar on Best Practices of Agri-business on 28 September 2010.

During the program, Mr VR Muthu, CEO, Idhayam group of companies, presented a seminar on Best Practices of Agri-business. A total of 72 mentors were identified and for the first time, as many as 19 agreements were signed between BPD managers and mentors.

Training on Technology Valuation, Evaluation and Business Planning

ABI-ICRISAT conducted a capacity building program on Technology valuation, evaluation, and business planning from 20-24 December 2010 at TNAU, Coimbatore for business managers of 10 BPD units. The training program was attended by 40 participants including Business Managers, Project Investigators (PIs) and Co-PIs.

PMAC Review Meeting

A Project Monitoring and Advisory Committee (PMAC) Review Meeting was organized from 9-10 February 2011 at CIFT Kochi. There were 29 participants. The progress made by
all the BPD units (ICAR and SAUs) including ICRISAT, Hyderabad was reviewed by the committee members.

ABI-ICRISAT

- ABI-ICRISAT in partnership with Info-Dev organized a Community of Practices (CoP) kick-off meet from 26-28 October 2010 at Hyderabad.
- Agri Intex 2010, 30 September - 3 October 2010 at Coimbatore.
- TiE-ISB Connect, 29-30 October 2010, HICC, Hyderabad.
- MSME Industrial Exhibition, 22-23 January 2011, Hyderabad.
- TERI Exhibition, 28-30 April 2011, Bengaluru.
- Rural Technology Mela, 2-5 February 2011, Hyderabad.
- Villgro Unconvention 2010, 3-4 December 2010 at Chennai. ABI-ICRISAT’s co-business incubation partners TNAU and AAU also participated.
- Krishi Kumbh Mela 2010, 8-11 October 2010, Pantnagar.

IARI

1. “Utpadak se Udyami” organized on 9 November 2010 at ZTM BPD IARI was held to explore possibilities of forming a farmer producer company of IARI.

The meeting was aimed to motivate progressive farmers to organize themselves into defined groups to take up seed multiplication ventures with the ultimate objective of creating a “Producer Company” in the seed sector. Around 65 farmers from 8 districts from Haryana and Uttar Pradesh participated in the meet. Six farmer groups were formed representing six districts - Ghaziabad, Faridabad, Gurgaon, Sonipat, Gautam Budh Nagar and Bulandshahr - with 10 or more farmers in each group.
2. A Participatory Rural Appraisal (PRA) was conducted at Gurgaon, Haryana, to do a basic diagnostic study of the village. A team of four from ZTM BPD IARI, New Delhi visited Dhani Khumbavas village in Gurgaon on 19 January 2011. Farmers of the village were involved in Participatory Rural Appraisal (PRA) activities which included four techniques:
   • Social mapping
   • Seasonal chart
   • Transect walk
   • Time line.


4. Participated in Krishi Kumbh Mela, 8-11 October 2010.

5. Annual General Body Meeting of farmer producer company, 24 October 2010, Baswada, Udaipur.

AAU

1. A Breeders’ and crop specialists’ meeting was organized at the Chandan Samit Hall on 3 September 2010, to decide AAU’s seed policy. Simultaneously, the seed committee was formed.

2. A Prospective Entrepreneurs and Stakeholders Meeting was organized on 7 October 2010. This was attended by around 75 prospective entrepreneurs who showed interest in AAU technologies.

3. A Technology Awareness and Commercialization Program for the food and dairy sectors was organized on 14 March 2011 at Ahmedabad Management Association, Ahmedabad. The event saw around 50 companies from the sectors participate.

4. Participated in the Rwanda Investment Road show at Hotel Mariott, Ahmedabad on 20 October 2010.
IVRI

1. A 20-day training program was facilitated for incubatees Mr Rupesh and Mr Narayav Rao of ZTM BPD Unit from 4-25 April 2011, conducted at the Central Avian Research Institute, Izatnagar. Training was imparted in rearing quails, their incubation and hatching.

2. A sensitization program on “Technology valuation - Key element in Technology commercialization” was conducted for scientists by Business Manager Dr Rahul Srivastava, at the International conference organized by Society of Animal Physiology in India, IVRI, Izatnagar on 13 November 2010.

3. A Training on “Hygienic milk production and Animal Health” was conducted from 15-19 November 2010. The Joint Directorate (Extension Education) provided training to two potential incubatees (Mr Manujendra Singh and Mr Lalit Sharma) of ZTM BPD ICAR North Zone II on the improvement of small-scale dairy farms. They were provided information on hygienic milk production and maintenance of disease-free livestock. The training covered health, production and management aspects of commercial dairy farming.

4. Participated in the Pantnagar Kisan Mela and organized a technology road show displaying promising technologies of ICAR North Zone II from 9-11 October 2010. Also received a special award during the event.

5. Actively participated in IMSACON 2010 from 19-20 November 2010 and organized a technology road show. Business Manager Rahul Srivastava delivered a talk on “Business Incubation in Veterinary sciences”.

6. Participated in the 98th Indian Science Congress, 3-7 January 2011, at SRM University, Chennai. Displayed major promising technologies of various institutes of ICAR North Zone II (IVRI, Izatnagar; CARI, Izatnagar; PD-FMD, CIFT

1. A Pangasius Festival, aimed at popularizing the farming, processing and consumption of Pangasius fish in the state by presenting different value-added products to fish farmers, entrepreneurs and the general public, was organized on 24 March 2011 at Eluru, West Godavari district, Andhra Pradesh, in which 450 members participated.
2. The event included an exhibition and the sale of value-added products, invited talks on fish processing and quality, demonstration of fish filleting and product preparation, and visits to prospective fish farms. The festival also presented new business opportunities for the domestic market.

3. A training program on Hygienic handling of fish and pre-processing was organized for an entrepreneur from 31 January-3 February 2011 at CIFT, Kochi.


5. Participated in the IIHR Horticulture meet from 11-12 November 2010, IIHR Bengaluru.

6. The incubation facility under construction is expected to be ready by November 2011.

CCSHAU

1. A one-day workshop on “Industry Linkage Programme” was organized at the Directorate of Human Resource Management, CCSHAU, Hisar. Around 100 participants, including industry representatives, deans, directors, heads of departments, scientists from Krishi Vignan Kendra’s (KVKs) and CCSHAU along with staff of various BPD Units participated in the brainstorming session.

2. The BPD unit demonstrated all the commercializable technologies at the Kisan Mela held on 19-20 March 2011 at CCSHAU. Over 5,000 farmers and entrepreneurs visited the mela.

3. A training on Seed production of hybrid vegetable crops was organized by the Department of Vegetable Sciences and the BPD unit on 19-20 April 2011, for which 11 entrepreneurs registered and were trained. Certificates were distributed by Dr Sucheta Khokhar, Dean, College of Agriculture-cum-Chairperson, BPD unit. Dr RK Kashyap, Director HRM-cum-Controlling Officer, BPD Unit and Dr RB Srivastava, Associate Director IPR Cell-cum-PI, BPD inaugurated the training.
5. Participated in the Leadership Development Program from 18-22 October 2010, IIM, Lucknow.

**JNKVV**

1. **An Agri-business Development Camp on Medicinal and Aromatic Plants**
   was held on 5 March 2011 at JNKVV, Jabalpur where 15 entrepreneurs dealing in medicinal & aromatic plants participated. The key speakers during the camp were Dr SK Rao, Dr DD Sharma, Joint Director, MFP Processing & Research Center, Bhopal and Mr Mihir Mohanta. The entrepreneurs were enlightened on the scope of herbal business in India and the world and the marketing of the such products in rural and urban markets.

2. **An Agri-business Development Camp on “Opportunities in Wheat & Chickpea Varieties to Seed Industry”**
   was held at JNKVV on 26 February 2011 in which 41 participants from private companies, cooperative societies and PMDPIP participated. Scientists made presentations about wheat and chickpea technologies available in JNKVV. They also visited wheat and chickpea trials on the JNKVV farm. Companies and cooperatives expressed satisfaction with existing and upcoming varieties and evinced interest in taking up production and marketing of selected varieties of wheat and chickpea.

5. Participated in Farm Tech at Bhopal, organized by the PHD Chamber of Commerce and the Government of Madhya Pradesh, 3-8 February 2011.
6. Participated in the Indian Seed Congress from 22-23 February 2011, organized by National Seed Association of India.

**TNAU**

1. An Agri-Business Development meet was organized on 2 November 2010 at TNAU. Around 120 members participated.
2. Agri–Intex exhibition was organized by BPD TNAU at TNAU, Coimbatore from 30 September-3 October 2010.
3. Facilitated a meeting on Bio-plantations on 2 February 2011 at Singampunari, in which 25 members participated.
4. Facilitated a meeting on Technology commercialization of Nutrigold on 4 February 2011 at BPD TNAU, in which 10 members participated.
Dr DD Sharma addressing entrepreneurs during the camp on medicinal & aromatic plant products.

Participants discuss wheat and chickpea technologies during the ABD camp.

Checking out wheat varieties during the ABD camp field visits.

Entrepreneurs visiting a laboratory at JNKVV.

The BPD JNKVV stall at the Jabalpur Business Expo.

JNKVV technologies being promoted at the Global Investors Meet.

JNKVV technologies displayed at Farm Tech, Bhopal.
5. An MSME Evaluation meeting for 15 entrepreneurs was conducted on 13 March 2011 at BPD TNAU. Eight innovators were identified for the MSME scheme.


8. Participated in the farmers meeting on Agri-Business Development at Agricultural College and Research Institute, Madurai, on 8 November 2010.

CIRCOT

1. An awareness program on IPR and Business Planning for West Zone technologies was organized at the Directorate of Medicinal and Aromatic Plants (DMAPR), Anand. Twenty scientists participated in the program.

2. An Advisory committee meeting was conducted on 22 October 2010 at CIRCOT, Mumbai. Fourteen members were present.

3. A Business Development Program on cotton technologies was organized at Ahmedabad Management Association on 7 January 2011, in which 100 entrepreneurs took part.

4. A demonstration on Patent Search and IP Management software was organized at CIRCOT, Mumbai on 25 January 2011. Sixty five scientific and technical staff of CIRCOT, Central Institute of Fisheries Education (CIFE), Central Marine and Fisheries Research Institute (CMFRI) and CIFT participated.

5. The 2nd Annual meeting-cum-workshop was organized from 10-11 March 2011 at ZTM BPD Unit, West Zone. The workshop aimed at promoting intellectual property management and
technology transfer in ICAR institutes. Out of the 18 institutes of the West Zone, 16 participated. The total number of participants was 105.

**BAU**

- An ICAR-Industry Meet was co-organized at BAU Ranchi on 1-2 April 2011 by BPD-BAU and ZTM BPD NIRJAFT.
- A 5-day workshop on “Seed production and quality planting material” was held from 22 November 2010.
- A 5-day workshop on “Hitech horticulture & tissue culture” was held from 13 December 2010.
- A 5-day training on Agribusiness opportunities in fishery enterprises was held from 3 December 2010.

**NIRJAFT**

1. Women were taught handicraft making at Sagar Island
2. An ICAR-Industry Meet was organized at Barapani from 18-19 November 2010.
3. An ICAR-Industry Meet was organized at Bhubaneswar from 16-17 February 2011.

ICAR-Industry Meet 2011, Bhubaneswar.

ICAR-Industry Meet 2011, Bhubaneswar.

CIRCOT’s 2nd annual meeting to promote IP management and tech transfer.

Inaugural of the ICAR-Industry Meet.

Women trained in handicap making, Sagar Island.

ICAR-Industry Meet 2010 organized at Barapani.
4. Organized sensitization programs for scientists in West Midnapur district on 22 November 2010. The program gave insights into the process of technology shortlisting using the AHP model.

5. Pilot plant trial on jute stick particle board was conducted at M/s Surichi Agroplast Pvt Ltd on 8 September 2010.

The boards were trimmed and cut to 2’x2’ size and packed in lots of 10 boards per pack. A price of ₹ 50 per board was fixed by the price fixation committee and sold to M/s Modern Construction, Kolkata.

Other Pilot Plant Trials

- Pilot plant trial on handmade paper.
- Pilot plant trial on jute composite.
Mobile phones keep irrigation water flowing in the fields

Farmers, like their urban counterparts, prefer some of their chores to be automated and remote-controlled. What better remote control could they have than the ubiquitous mobile phone?

Thanks to movies, childhood picture stories and folk tales, the urbanite’s mental picture of a farmer is that of one roaming the fields, planting, watering, weeding, and sometimes even sleeping underneath a tree by a paddy field.

It turns out that farmers, like their urban counterparts, prefer some of these chores to be automated and remote-controlled. What better remote control could they have than the ubiquitous mobile phone?

That, in a nutshell, is the idea behind m-Irrigation, a mobile-based irrigation control system built by EMRAL Tune Line Auto Tech Ind., an electronic automation company founded and run by MP Rajkumar, an engineering graduate, and now a Tamil Nadu Agricultural University (TNAU) associate.

"It might seem like an application for pure convenience, but it saves lives," says 42-year-old Rajkumar, who grew up in his father’s orchards near Madurai. “I’ve seen farm workers go off in the night, carrying a torch or a hurricane lamp to turn on the motor for irrigation, or adjust the water level, because that’s when nobody’s working or walking on the fields and often, the only time when uninterrupted power supply is available.”

Years later, as he founded and ran EMRAL as an industrial automation systems company, one of his colleagues told him about farmers succumbing to snake bites as they went about their business of irrigation in the night. “Something clicked in my mind and decided that developing an irrigation automation control system would be useful indeed." And thus m-Irrigation was born in 2006.

EMRAL has sold 750 units of its m-Irrigation system in the past four years. A unit typically consists of a panel board to be installed at the motor control room of the farm and a BSNL modem attached to the board to receive calls and messages. The board is programmed to receive commands of operation through calls or SMS.

When a farmer wants to switch on his motor in the middle of the night to water his fields, he doesn’t have to trudge all the way to the control room in the dark. All he has to do is dial the number of his modem or send it an SMS commanding it to switch on or off the motor, and out gushes the water!

If that sounds like sci-fi, note that it is just function of the basic model. There are many additional features and sometimes specifically customized add-ons to the basic product. According to Rajkumar, the most popular feature is the power-cut alert.

“One of the frustrating experiences for farmers in recent times has been running an irrigation system and not knowing whether the power has been off at any point of time during its operation,” he says. “What m-Irrigation does is to send an SMS alert, or even a call alert recorded in the regional language for farmers who can’t read, when the power goes down and when it comes back on again. The farmer can also respond to this alert with an SMS or call-based command to the motor system.”
The next most popular feature is the anti-theft alarm, built by connecting a siren to the panel board. The user is issued a security card and a passkey to operate the motor manually, if necessary, through the panel board. If an intruder tries to access the motor valves directly, the siren goes off.

Some of these features have also been necessitated by the growing demand for remote irrigation in corporate farms, clients that EMRAL has been introduced to by TNAU. In fact, the company expects to sell 1,500 units in 2011-12 alone because of the incubation support received from TNAU.

“Our clients are usually sugarcane farmers, who are generally large-scale contract farmers who supply to sugar mills near Coimbatore and Madurai. We also supply to some plantations in Kerala,” Rajkumar says. “Now, there is increased corporate involvement in all these areas and so, more corporate clients for us.”

Such clients, ordering 50-100 units in a go, are big business for the company, which makes around ₹ 20 lakhs in revenue per year. It has been managing its operations on a small scale with just eight employees, all technical diploma holders, by roping in local electricians for installation and support. The product is sold at a cost ranging from ₹ 3,500 to ₹ 9,000, depending on the features, which includes installation and a seven-year replacement and service warranty.

“It is a chance for us to scale up, as we have so far been doing an assortment of automation projects ranging from hospitals, home gate monitoring, even banks,” Rajkumar says. “As a research-oriented company, this is a challenge for us as we have to innovate to meet demands like a rainfall measurement and monitoring system attached to m-Irrigation.”

According to Rajkumar, the company pumps about 70% of its revenues back into research and engineering.

“It’s all worth it if the innovation can prevent a worker from dying of a snake bite because he had to go out in the dark to turn on a motor.”

Source: www.livemint.com
Avail funding now

with just one Innovative Idea

Micro Small and Medium Enterprises Scheme (MSME)

The scheme aims at nurturing innovative business ideas (new/indigenous technology, process, products, procedures etc) which could be commercialized in a year, through on-site incubation at the research institutes and State Agricultural Universities listed below. The Agribusiness Incubators operating the MSME scheme are:

- ABI-ICRISAT, Hyderabad, Andhra Pradesh
- BPD AAU, Anand, Gujarat
- BPD BAU, Ranchi, Jharkhand
- BPD JNKVV, Jabalpur, Madhya Pradesh
- BPD TNAU, Coimbatore, Tamil Nadu
- ZTM BPD CIRCOT, Mumbai, Maharashtra
- ZTM BPD IVRI, Izatnagar, Uttar Pradesh

**Funding support:** About ₹ 6.25 lakhs per business idea, flexible between ₹ 4 lakhs to ₹ 8 lakhs per idea/unit as recommended by the Experts and Management Committee of the respective incubator.

Technopreneur Promotion Program (TEPP)

The Technopreneur Promotion Program (TePP) is an initiative of the Department of Scientific & Industrial Research (DSIR), Government of India. It focuses on lending financial support to individual innovators/ firms* to convert their novel ideas into working prototypes/models. ABI-ICRISAT is the TePP Outreach Center (TUC), Andhra Pradesh.

**Funding support**

- Micro Technopreneurship Support (MS): Maximum of ₹ 75,000 for concept validation
- TePP Project Fund (TPF): Maximum of ₹ 15 lakhs for working models/ prototype development
- Supplementary TePP Fund (STF): After successful completion of Phase I: Maximum of ₹ 7.50 lakhs
- Seamless Scale-up Support (S3T) for commercialization of Innovation: Maximum of ₹ 45 lakhs.

If you have an Innovative Idea and want to apply to any of the schemes, contact your nearest Agri-Business Incubator.

*A company’s turnover should not exceed ₹ 45 lakhs per annum.
### Reach us

<table>
<thead>
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