

Agri-Alumni: Soaring Beyond the Flocks

The Inspiring Journeys of AAU Graduates Who Redefined Success

(Volume I)



INNOVATE, IGNITE
AND INSPIRE



ASSAM AGRICULTURAL UNIVERSITY
JORHAT-13

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A compilation of Selected Agripreneurs of CA, AAU, Jorhat

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Sankaracharya Rabha

AGR Pioneer Seeds Pvt. Ltd.

I hold a B.Sc. (Agriculture) degree from Assam Agricultural University, Jorhat, and possess more than 16 years of professional experience in the agricultural sector. Over the years, I have worked with leading multinational and Indian companies such as Indofil Chemical Company, Tata Rallis, PI Industries Ltd., and gained an additional six years of specialized experience in the seed industry with reputed organizations like U.S. Agri Seed, Tropica Seed, and Novo Seed.

KNOWLEDGE, SKILLS AND GUIDANCE

My professional journey has taken me across the entire state of Assam and the North Eastern region of India, enabling me to gain extensive knowledge about seed production, field-level challenges, and the marketing potential of different crops.



As part of my work profile, I had direct interactions with farmers on a daily basis. These interactions not only enhanced my understanding of the practical difficulties faced by farmers, but also strengthened my ability to design solutions that align with their needs. This hands-on exposure inspired me to channel my expertise and passion into entrepreneurship. With this vision, I incorporated Allied Crop Care Pvt. Ltd. in 2011, primarily to produce and supply high-quality seeds for the farmers of Assam and North-East India.

To strengthen my understanding of the global seed industry, I also travelled to neighboring countries such as Bangladesh, Nepal, Thailand, Vietnam, and Laos, where I studied seed production systems, technology adoption, and market structures. Through perseverance and dedication, I was able to position my company as an active co-partner with leading industry players including U.S. Agri Seed, Limagrain, Novo Seed, Laal Teer, and several pesticide companies, while also developing a strong association with Assam Agricultural University.

Over the years, the company established itself as a trusted partner of farmers, and my network and exposure across rural communities played a crucial role in its growth. After eight successful years of operation, due to unavoidable circumstances following the sudden demise of a partner, the company was restructured as M/S AGR Pioneer Seeds Pvt. Ltd.

Today, under this new entity, we are recognized as one of the leading private seed producers in Assam and the North-East region of India.

ABOUT THE COMPANY: AGR PIONEER SEEDS PVT. LTD.

The company was originally formed in 2011 with a mission to provide quality agricultural seeds to farmers and to empower rural communities through training and exposure to modern farming technologies. At inception, the focus was not only on seed production but also on farm management support, financial guidance, and crop management practices.

Soon after establishment, the company expanded into the production of paddy seeds in Assam, securing production and marketing rights from Assam Agricultural University, Jorhat and ICAR–National Rice Research Institute (NRRI), Cuttack, for several notified paddy varieties. For the past 12 years, we have successfully produced quality-certified paddy seeds under the supervision of RARS Titabor and the Assam Seed Certification Agency, which have been well accepted by farmers across major rice-growing regions of Assam.

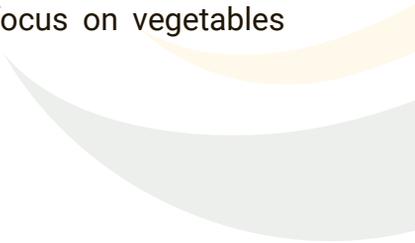


Our business model is deeply rooted in community-based and contract farming systems, which have not only ensured the quality of seeds but also contributed to income enhancement for farmers. With years of fieldwork, we have gathered valuable insights into the cropping patterns of Assam and North-East India, enabling us to develop strategies that align with local needs.

UNIQUENESS

The production of high-quality seeds is the foundation of any successful agricultural program. In today's competitive market, quality seeds not only ensure better yields but also serve as a critical marketing tool for crop diversification and commercialization.

North-East India represents a promising frontier for the seed industry. Blessed with rich biodiversity and diverse agro-climatic conditions, the region has immense potential to emerge as a globally competitive hub for seed production and export. However, despite these advantages, the seed sector in the region remains underdeveloped, dominated primarily by a few government-run paddy and mustard processing units. AGR Pioneer Seeds Pvt. Ltd. is among the first private enterprises to establish dedicated seed production and processing facilities, with a strong focus on vegetables and cereals.

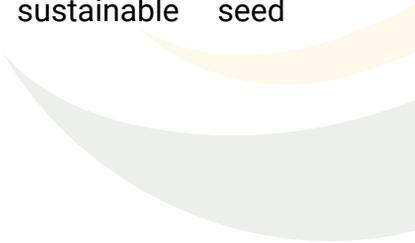


CHALLENGES

The seed sector in North-East India continues to face several pressing challenges. There is a heavy reliance on imported seeds from other parts of the country or abroad, which are not only expensive but also often unsuitable for the local agro-climatic conditions. In addition, the extensive use of chemically treated imported seeds poses significant risks to both human health and the environment. Another major concern is the declining productivity of indigenous land races, which is largely a result of mechanical admixture and genetic degradation, threatening the preservation of these valuable native varieties. To overcome these challenges, AGR Pioneer Seeds Pvt. Ltd. has taken a pioneering step by focusing on the production of locally adapted, climate-resilient, and disease-tolerant seed varieties, while simultaneously working towards the conservation and improvement of traditional land races of paddy and vegetables that hold both cultural and economic significance for the region.

ACHIEVEMENTS AND INFRASTRUCTURE

Over the years, AGR Pioneer Seeds Pvt. Ltd. has made significant achievements while building a strong infrastructure base to support sustainable seed production.



The company has successfully collected and preserved traditional vegetable land races such as *Joha Bhol*, *Balijana Bengana*, *Khongia Bengana*, *Bar Bengana*, *Kon Jolokia* and *Suryamukhi Jolokia*, along with valuable paddy varieties like *Malbhog* (for flattened rice), *Chakua* rice (for instant rice), *Kola Joha* (a highly demanded scented rice) and Black rice (known for its unique nutritional qualities). Selected lines from these varieties have been developed and tested for uniformity and yield performance, ensuring their suitability for large-scale cultivation. To support this, the company has established state-of-the-art facilities, including a 5000 sq. ft. polyhouse to prevent open pollination, a modern seed processing plant equipped with advanced cleaning, grading, and packing units, a cold storage facility for long-term preservation, 1.5 hectares of irrigated cultivation land with drip and sprinkler systems, and 6 hectares of leased highland exclusively used for vegetable seed multiplication.

STRATEGIC STRENGTHS

Our strategic strengths lie in our unwavering focus on developing and promoting climate-resilient, pest- and disease-tolerant varieties that are well adapted to the unique agro-climatic conditions of Assam and North-East India.



We strongly believe in the effectiveness of demonstration-based marketing, where farmers are able to witness the performance of seeds directly in their own fields before adoption, thereby building confidence and trust. Backed by over two decades of professional experience in the agricultural sector, we have nurtured strong personal relationships and trust with farming communities across the region. This close association not only provides us with valuable insights into the challenges faced by farmers but also equips us with the ability to identify farmer-centric problems and develop sustainable seed solutions that are practical, reliable, and aligned with their real needs.



Ranjit Kumar Borah

Proprietor, B.V. Aromatics & Kaliabor Nursery

INSPIRATION BEHIND THE VENTURE

After completing my graduation, I joined as an Agriculture Officer in a project called Agricultural Forestry under Kitply Industries Limited, where I gained valuable experience working across Assam, Arunachal Pradesh, and Nagaland. In 1993, the Government of India relocated this project to Chhattisgarh due to the limited landholding capacity of farmers in the Northeast India. Consequently, along with 30 young colleagues, I moved to Raipur, Chhattisgarh, where we established a new office and continued our work until 1996. Thereafter, I joined Flower Valley Agrotech Pvt. Ltd. under the Ajmal Group to explore new directions in agriculture. During this period, I had the privilege of working closely with two esteemed teachers of our



university, Dr. Moktar Hussain Hazarika and Dr. Maniruddin Ahmed, as well as Dr. Padmeswar Gogoi, the then Head of the Department of Botany at D.R. College. Together, we carried out several field-based agricultural initiatives and research on aromatic and medicinal crops. In collaboration with Dr. Farooque, the then Head of the Department of Aromatic and Medicinal Plants at the University of Agricultural Sciences, Bangalore, we initiated the cultivation of crops like patchouli, geranium, rosemary and white sandalwood in Dodballapur, Bangalore. Inspired by the dedication and guidance of my respected teachers, I resigned from my job in 1999 to start the first commercial cultivation of patchouli in Assam. Though I had no prior experience in business, I was encouraged by the then Deputy Commissioner, Hon'ble Abchar Hazarika and the then Minister of Industries, Shri Gunin Hazarika. With their support, I started growing patchouli cultivation at Kaliabar for the very first time.

With the tireless efforts of respected Abchar Hazarika Sir, a West Germany-based company, Asinon Incorporation, arrived in July, 2001. Following their arrival, NEDFI (North Eastern Development Finance Corporation) extended its support by granting us Rs. 4,00,000.00 to initiate the venture. This fund was utilized to expand patchouli cultivation across different parts of the North East.



In addition, NEDFI further provided a loan of Rs. 9,20,000.00 to assist in setting up the industry. Finally, in late 2002, the Brahmaputra Valley Aromatic Oil Industry was established for essential oil extraction. The industry was inaugurated by Dr. Himanta Biswa Sarma, then Hon'ble Minister of Planning & Development (presently the Hon'ble Chief Minister of Assam).

Since then, our work has expanded beyond Patchouli to include the cultivation of various aromatic and medicinal crops. From 2004 onwards, we also began extracting oil from the rhizomes of Sugandh Mantri. This crop holds immense value, and for years, companies from outside Assam purchased rhizomes from the local people and transported them out of the state for oil extraction. Unfortunately, due to limited awareness and lack of interest in adopting new practices, this valuable resource has been mismanaged. Ideally, our farmers and unemployed youth in Assam could have promoted this crop by establishing small-scale industries and utilizing government schemes to conserve and expand its cultivation. Such initiatives could have generated sustainable livelihoods and opened numerous avenues for self-employment among the state's underprivileged youth. This is unfortunate for all of us.



The dry rhizome of this crop is valued at around Rs. 35,000 per kg, while its oil is nearly sold at Rs. 40,000 per kg. Unfortunately, the availability of Sugandh Mantri has declined considerably in recent years. To address this, we have been actively spreading awareness through articles and by providing technical guidelines to researchers and institutions such as KVKs.

Our vision is to develop a comprehensive package of practices that can help generate self-employment opportunities for farmers and rural youth through the cultivation of such high-value aromatic crops. To achieve this goal, cooperation from all stakeholders is crucial. A strong collaboration between the Agricultural Universities, Government, Departments of Agriculture and Forest, and entrepreneurs working in this field is the only way to realize the true potential of these crops.

Since availability of Sugandh Mantri became less, we diversified our venture into the cultivation and oil extraction of other aromatic crops such as Chitranaala, Lemongrass etc. At present, we are cultivating these crops on 100 bighas of land and supplying the extracted oils to different parts of India. Additionally, we are managing a 75-bigha Palm Oil Nursery under Patanjali Foods Limited, with seedlings supplied primarily to Arunachal Pradesh. Alongside our farming activities, we organized training camps on aromatic and medicinal crops under the Assam Skill Development Mission from 2017 to 2020.

We have continued to provide these training and guidance to individuals and organizations not only from Assam but also from Nepal, Arunachal Pradesh, Kolkata, Malaysia etc. While many institutions and industries outside Assam have made significant progress in this sector, our state is still lags behind. To bridge this gap, coordinated efforts by the Government, agricultural scientists and the Department of Agriculture are really needed.

I would like to share a few insights from our experience and observations in the field of Medicinal and Aromatic Plants (MAPs):

- **Small-scale industries based on MAPs can be established in different regions of Assam according to market demand. These can create significant self-employment opportunities for the youths.**
- **Even young people who may not be interested in conventional agriculture often show enthusiasm for ventures related to MAPs.**
- **Such industries can empower local youth, generate sustainable livelihoods, and help reduce unemployment to a considerable extent.**
- **While selecting MAP crops, it is essential to study both the market potential and demand for the produce.**

- Profitability depends not only on market price but also on determining the minimum land area required to ensure continuous supply for running an industry.
- Training and guidance from experienced departmental officers and successful entrepreneurs are crucial for building skills and confidence.
- To develop a mass of entrepreneurs in this sector, government support in terms of financial assistance, assured markets and other facilities is crucial. Without this, large-scale entrepreneurship will remain a challenge.
- In Assam, testing facilities for oil samples are limited. Hence, advanced facilities like GLC or GCMS must be made available at government research stations.
- The most critical factor is the market. Although demand for MAP-based products is very high, Assam's limited production discourages large buyers. With a well-organized market structure for Aromatic and Medicinal Plants in Assam, buyers would come in greater numbers. At present, we work with a few buyers but due to their high demand, we are unable to meet the requirements of all.

We need to establish a dedicated Aromatic & Medicinal Oil market in Assam. Such a market or agency could purchase oils produced across Assam and the North East, serve as stockists, and supply them to major buyers.

This would provide farmers and entrepreneurial youth with a reliable local platform, encouraging them to engage in self-employment with more confidence and enthusiasm. We sincerely hope that our university and the government will take appropriate initiatives in the future.

Since 1991, alongside our aromatic crop cultivation and oil extraction programmes, we have maintained a nursery spread over 18 bighas of land. This nursery houses a wide variety of fruits, vegetables and seedlings of numerous aromatic and medicinal plants. Together, our nursery and industry employ 11 permanent staff members and provide work to 30-60 daily wage workers.

We regularly supply seedlings, particularly to the Horticulture and Agriculture Departments in Arunachal Pradesh and this has enabled us to generate significant financial returns with supplies worth several lakhs of rupees. On an average, our combined nursery and industry business amounts to Rs. 1–1.5 crore annually. When viewed in terms of net profit, it is equivalent to drawing a monthly salary of around Rs. 2 lakhs. This clearly shows that self-employment in this sector can provide a more rewarding livelihood than a regular salaried job.



I would like to share a few thoughts drawn from our education and professional experience. Our goal should always be to develop skills in a specific sector alongside basic knowledge. It is important to focus on both technical quality and quantity at the same time. We need to create highly capable master trainers and equip the new generation of students with practical skills. Teachers and students must be exposed to such initiatives. In short, if we combine theoretical knowledge with practical business techniques and train our youth to be fully skilled, their career opportunities will expand greatly. Moreover, each skilled individual can guide many others, becoming a valuable asset to society.

The various aspects we discuss are a reflection of our experiences at different times in our working lives. We would be happy if all readers accept this article as relevant and correct.



Prodyumna Borah

Managing Director, *Kristir Kothia*

During my MBA in Agri Business, a quiet conviction took root in me, the belief that agriculture could be the key to addressing rural unemployment. Guided by this vision, I turned to my native village, where fertile fields lay waiting and young people sought meaningful opportunities, and began cultivating Bhoot Jolokia, the famed ghost pepper of Assam. With a small group of rural youth and under the scientific guidance of agricultural experts, we nurtured this venture with precision and sustainability, and soon our produce found demand across the North East and beyond. Yet, as the initiative grew, I realized that sustaining production, meeting rising demand, and streamlining the supply chain required more than hard work, it needed a structured



system that could connect grassroots efforts with government schemes, institutional funding, and skill-building opportunities. Out of this realization emerged *Kristir Kothia*, an organisation I co-founded as a bridge between rural aspirations and institutional support, dedicated to empowering youth and women with income, dignity, and a future rooted in pride. What began as a humble student initiative has since blossomed into a life mission, with *KristirKothia* standing as a testament to how vision, when coupled with action, can transform agriculture from a means of survival into a powerful tool of hope and social change.

MOTIVATION

From my childhood memories of hardworking farmers and artisans struggling to receive fair value for their produce and craftsmanship, I realized that their challenge was never a lack of skill or dedication but the absence of systems that valued their work and preserved their dignity. That realization sowed in me the seed of entrepreneurship, which later blossomed into *Kristir Kothia*, an NGO I co-founded with my wife, Dr. Bismita Dutta, a renowned Sattriya artist equally committed to cultural revival and rural development. Through *Kristir Kothia*, we envisioned a platform where agribusiness and traditional crafts could coexist in harmony, rooted in sustainability and pride.

Our initiatives, ranging from beekeeping and mushroom cultivation to traditional food processing, were designed not merely as income-generating ventures but as pathways to identity, cultural preservation, and long-term empowerment. Today, as we continue this journey, I hold firmly to that early lesson: that true rural development is not only about improving livelihoods but also about restoring respect, reviving heritage, and shaping a future where tradition seamlessly meets innovation.

SERVICES OFFERED

Agricultural Livelihoods through Scientific Mushroom Cultivation and Its Value Addition Project

Kristir Kothia has been leading a large-scale initiative in mushroom cultivation and value addition across Sarupathar and surrounding areas. Backed by the CSR initiative of ONGC, Jorhat, this project has empowered more than 500 rural women with income-generating opportunities. From training in scientific cultivation techniques to setting up value-added mushroom products, the program has fostered self-reliance and entrepreneurship.

A significant milestone in this journey was the formation of a Farmer Producer Organization (FPO) on mushrooms, registered under the Department of Horticulture, Government of Assam. This FPO not only ensures market linkage and better price realization but also strengthens the collective bargaining power of women cultivators.

Channel Partner of NABARD

Promoting Rural Micro-enterprises *Kristir Kothia* proudly serves as a Channel Partner of NABARD, Regional Office Guwahati, implementing various flagship livelihood programs such as the Micro Enterprise Development Program (MEDP) and the Livelihood Enterprise Development Program (LEDP) across several districts of Assam. These initiatives focus on:

- **Scientific Honeybee Farming**
- **Scientific Poultry Rearing**
- **Handloom and Textile-Based Skill Development**

Over the years, more than 300 rural women have benefited from these programs, enabling them to earn a sustainable livelihood and contribute meaningfully to their household incomes. These interventions have not only reduced dependency but have sparked a wave of entrepreneurship in rural Assam.



Revival and Promotion of Indigenous Art and Craft

Deeply committed to cultural preservation, *Kristir Kothia* has been actively working with indigenous artisans involved in traditional crafts such as: Majuli Mask Making, Wood carving, Pottery Making, Cane and bamboo craft, Handloom and Handicraft etc. With the goal of reviving these age-old art forms and making them economically viable, *Kristir Kothia* has been empanelled with several key cultural organizations like NEZCC, EZCC, NCZCC, and the Development Commissioner (Handicrafts) under the Ministry of Textiles, Government of India. Through these partnerships, the NGO conducts training, workshops, and exhibitions that not only preserve traditional knowledge but also open up national and international markets for these artisans. A landmark achievement in this domain was the successful registration of the GI Tag for Majuli Masks in 2023. This historic recognition has brought global attention to the craft and significantly boosted the income and morale of local artisans associated with the initiative.

Mushroom Cultivation and Processing Unit

Project under NRL CSR Extending its successful mushroom model beyond Sarupathar, *Kristir Kothia* has also initiated a mushroom cultivation and processing unit in Golaghat district, sponsored by NRL under its CSR initiative. So far, this project has positively impacted over 150 women, equipping them with practical skills and business acumen. The integrated model from cultivation to processing and packaging ensures value creation at every level, maximizing profits for the beneficiaries.

FPO Formation & Agribusiness Consultancy Services

To further support the rural agrarian ecosystem, *Kristir Kothia* has launched consultancy services for FPO formation and agribusiness development. In collaboration with Apex Cooperative Bank, the NGO has successfully established eight Farmer Producer Organizations (FPOs) across districts like Jorhat, Golaghat, Karimganj, and Cachar. These FPOs are currently operational and thriving, engaging hundreds of farmers and rural entrepreneurs in collective business ventures. *Kristir Kothia's* consultancy wing also provides end-to-end support right from business planning, registration, and funding mobilization to market linkage and operations ensuring that FPOs are not just formed but are run professionally and sustainably.

Spreading Awareness and Building Resilience in Collaboration with ASDMA

Every year, *Kristir Kothia* proudly partners with the Assam State Disaster Management Authority (ASDMA) to foster awareness and preparedness among rural communities across Assam. Through this meaningful collaboration, we play an active role in educating the public about Road Safety, Flood Safety, and preparedness for other natural disasters. Our initiatives include:

- **street plays that creatively communicate life-saving messages**
- **community meetings to sensitize local populations on disaster readiness**
- **flood relief camps where we distribute essential items to affected families**
- **pre-disaster awareness campaigns that promote resilience and reduce vulnerability**

By integrating culture, compassion, and community spirit, *Kristir Kothia* continues to stand at the forefront of disaster preparedness and response empowering people, saving lives, and nurturing hope.



UNIQUENESS

Kristir Kothia stands out as a grassroots-driven organization that blends indigenous knowledge systems with modern agribusiness practices to empower rural youth and women in Assam. What makes it unique is its holistic approach to development, deeply rooted in culture yet forward-looking in vision. By reviving and commercializing traditional textiles, folk foods, and agrarian heritage, *Kristir Kothia* integrates cultural identity with enterprise creation. Its inclusive models prioritize women and youth, equipping them with skills and entrepreneurial opportunities that foster equitable growth in underserved rural areas. Further, its strong institutional linkages with AAU, Jorhat, NABARD, ONGC and NRL position *Kristir Kothia* as a collaborative innovator, bridging tradition and modernity to reimagine rural development.

INNOVATION

Kristir Kothia drives innovation through community-based enterprise models that pioneer cluster-based entrepreneurship in areas like mushroom cultivation and beekeeping, with a strong focus on collective ownership through FPOs and SHGs to build self-sustaining rural business ecosystems.

At the same time, it actively mentors agri-startups and facilitates incubation support in collaboration with institutions such as NEATEHUB and Assam Agricultural University, effectively bridging grassroots realities with structured enterprise-building pathways and fostering a new generation of rural entrepreneurs.

INCORPORATION OF CUTTING-EDGE TECHNOLOGY

Kristir Kothia integrates cutting-edge technology into rural development by strengthening digital capacity through virtual training sessions, mobile-based advisory services, and the use of WhatsApp groups and YouTube channels to keep participants connected with experts, markets, and peer networks. It further introduces precision and smart farming techniques such as IoT-enabled mushroom grow rooms, climate-controlled beekeeping boxes, and low-cost solar dryers, enabling value addition and extended shelf life of farm products while making advanced practices accessible to rural communities.

ROLE OF EDUCATION IN THE JOURNEY

Pursuing an MBA in Agri Business was a transformative milestone in my career, equipping me not only with technical knowledge of agriculture and allied sectors but also with the managerial and entrepreneurial skills essential for creating sustainable rural impact.

The program deepened my understanding of agri-value chains, rural marketing, supply chain logistics and financial management, enabling me to design and implement effective development projects. Exposure to case studies, field assignments and interactions with agribusiness leaders further shaped a solution-oriented mindset, which has been pivotal in my work with *Kristir Kothia*, where I align traditional livelihoods with modern business practices to ensure both cultural preservation and economic viability. In essence, the MBA laid the foundation for a purpose-driven career, where agriculture serves not merely as a profession but as a powerful vehicle for socio-economic transformation.

ECONOMIC IMPACT

Kristir Kothia has made a significant economic impact by creating sustainable livelihood opportunities for rural youth and women through agribusiness ventures such as beekeeping and mushroom cultivation, while simultaneously building entrepreneurial capacity through targeted training programs that have enabled many to establish micro-enterprises in agriculture and allied sectors.

SOCIAL IMPACT

The social impact of *Kristir Kothia* is evident in its focused interventions that have empowered rural women with financial independence, decision-making power, and social recognition, while breaking traditional gender roles and fostering female leadership in agribusiness. By promoting local agri-based livelihoods, it has meaningfully engaged rural youth, reducing migration to urban areas and strengthening community resilience. The organization has also played a vital role in cultural revival, integrating indigenous crafts, traditions, and knowledge systems with modern agribusiness models to preserve heritage and instill community pride. Additionally, initiatives like mushroom cultivation and beekeeping have not only provided sustainable income but also improved household nutritional security, particularly benefiting women and children.

CURRENT TRENDS

Current trends in agribusiness and rural enterprises present vast opportunities for self-employment, particularly as consumer preferences shift toward sustainability, cultural revival, and healthy living. Organic and natural farming is witnessing growing demand, with immense scope for tie-ups with Farmer Producer Organizations (FPOs), local organic markets, and e-commerce platforms that cater to health-conscious buyers seeking chemical-free produce.

Similarly, ventures like beekeeping, mushroom cultivation, and sericulture offer high returns with low capital investment, supported by institutions such as NABARD, Krishi Vigyan Kendras (KVKs), and Agricultural Universities that provide training and technical guidance. Agri-input retail outlets and custom hiring centers are also emerging as promising models, allowing entrepreneurs to rent out mechanized services like tractors and harvesters to smallholders while also supplying bio-fertilizers, quality seeds, and other critical inputs. Value addition and food processing of items such as pickles, jams, spices, and millet-based products further enhance income potential, particularly when supported by GI tagging and local branding that expand market reach.

Beyond agriculture, the revival of traditional handloom and handicrafts through online platforms and exhibitions has opened new avenues for artisans, ensuring cultural preservation alongside economic gains. At the same time, innovative waste management and recycling initiatives ranging from composting and plastic upcycling to paper bag production are gaining momentum, addressing environmental concerns while creating livelihood opportunities. Together, these trends illustrate how self-employment in rural areas can be both economically rewarding and socially transformative.



Samir Bordoloi

Green Commandos

“Just as a doctor saves lives and an engineer builds them; a farmer nurtures life itself. I proudly prefix Farmer to my name-because in the new age, we are not just cultivators; we are Eco-social Agripreneurs co-creating a future rooted in coexistence, climate wisdom, and rural prosperity.”

— Farmer Samir Bordoloi

In the hills, valleys, and wetlands of North East India, where traditional knowledge meets ecological fragility, one man’s journey has sparked a silent revolution. Farmer Samir Bordoloi, a trained extensionist turned agroecological warrior, has grown from a lone plant doctor into a powerful force of sustainable transformation. His work today branches out across model villages, food forests, community enterprises, and global partnerships co-creating a resilient ecosystem with 4,800 trained Green Commandos, combatting climate change through regenerative farming.



ROOTED IN EXTENSION, GROWN IN ACTION

Samir's story begins at Assam Agricultural University, where he studied Extension Education, gaining the academic grounding that would one day empower him to revolutionize it. He left a stable corporate career with Tata Chemicals, guided by a calling to work directly with farmers. This led to the founding of S. S. Botanicals, the first private Plant Health Clinic in eastern India, where he offered direct services to smallholders not from behind a desk, but from the heart of their fields.

The early years were marked by trust-building, walking from village to village, listening deeply, and challenging the conventional narrative that productivity required chemicals. This field-based, people-first model would later evolve into a full ecosystem of eco-social transformation.

FROM PLANT CLINICS TO FOOD FORESTS AND MODEL VILLAGES

Samir soon realized that the real healing lay not just in treating plant symptoms but in reviving ecological systems. This realization birthed his Food Forest model, a regenerative farming method mimicking forest ecosystems.



At Sonapur near Guwahati, he established one of the first zero-cost food forests, using native tree species and traditional intercropping, producing food without external inputs. He expanded the model into the tribal villages of Umswai in Assam's Karbi Anglong district, where entire communities shifted from shifting cultivation to agroecological village models.

“My agriculture degree didn't just prepare me for a job— it empowered me to be an educated farmer, rooted in science and guided by purpose. Farming gave me global recognition while keeping me the owner of my dreams. To every agricultural student: dare to farm. Success, respect, and self-worth are guaranteed when you grow food and grow lives.”

— Farmer Samir Bordoloi

THE RISE OF GREEN COMMANDOS FORUM: YOUTH AS SOIL SOLDIERS

To scale impact, Samir launched the Green Commandos Forum (GCF), a dynamic youth-led movement that trains rural and semi-urban youth as eco-social agripreneurs. These commandos learn hands-on skills in farming, climate adaptation, indigenous knowledge systems, entrepreneurship, and community facilitation.



Today, the network has 4,800 trained Green Commandos across Northeast India, actively co-creating community-based enterprises, restoring degraded lands, and reviving local food systems. They are turning 'slash and burn' areas into sacred groves and food forests, reimagining farming as a tool for healing land, climate, and livelihoods.

In 2025, the Forum embarks on its most ambitious campaign: planting 50,000 native fruit and forest trees across the hills of West Karbi Anglong using Samir's innovation - the GCFSALT (Green Commandos Forum Slope Agriculture Land Technology) model, which converts jhum (shifting cultivation) plots into stable, tree-based agroforestry systems.

SPREAD NE FOOD FOREST: A LIVING CLASSROOM OF COEXISTENCE

At the heart of Samir Bordoloi's ecological vision stands the SPREAD NE Food Forest & Farm Learning Centre in Rupnagar, Sonapur, Assam-a pioneering model of coexistence-based farming and climate resilience. Spread across 15 acres, this living forest is not merely a farm but a thriving ecosystem where native trees, wild edibles, herbs, fruits, and traditional crops grow together in multistoried harmony. Developed with Samir's innovative ideas of compassionate natural farming, the Centre reflects his philosophy that agriculture must be rooted in interdependence, not dominance.

The SPREAD NE Food Forest is designed to mirror the natural forest ecosystem, where birds, insects, animals, microbes, and humans all play critical roles in nurturing and regenerating life. It is a living laboratory and sanctuary, where farming becomes an act of coexistence, learning, and renewal. In the SPREAD NE Food Forest, he trains Green Commandos, a growing network of over 4,800 rural youth who are being shaped into eco-social agripreneurs equipped to co-create climate-smart communities and sustainable livelihoods across the Eastern Himalayas.

The Centre also serves as a vibrant hub for agro-experiential tourism and activity-based rural education, where schoolchildren, youth, and farmers participate in immersive learning. Through hands-on exposure to natural farming techniques like bamboo biochar making, zero-external-input homestead farming, and food forest creation, young minds begin to rediscover farming as a noble, joyous, and regenerative act. With every tree planted and every Green Commando empowered, the SPREAD NE Food Forest continues to grow not just as a farm, but as a movement, nurturing a generation dedicated to healing the earth through compassionate farming.

AGROECOLOGY MEETS GLOBAL PARTNERSHIPS

Samir's credibility and commitment have fostered collaborations with several international development organizations. As a consultant for GIZ India under the SuATI project, his Integrated Farming Systems (IFS) models have been successfully adapted in Assam. He also serves as an Agricultural Extension Specialist for the UN FAO GreenAg Project in Mizoram, where he trains community resource persons and farmers in agroecological practices. His partnership with UNDP has contributed to a wetland restoration initiative that revived indigenous biodiversity and strengthened local livelihoods. Additionally, in collaboration with the Global Himalayan Expedition and Plantera (UK), he has facilitated the planting of 30,000 native trees through Homestead Food Forests and Community Sacred Forests. Collectively, these partnerships extend his grassroots approaches into global climate mitigation frameworks, recognized for their emphasis on community ownership, cultural relevance, and biodiversity regeneration.

AN INNOVATOR IN RURAL EDUCATION AND EXTENSION

One of Samir's most unique contributions is reviving farming as a form of education. Through farm-based curriculum in rural schools, he makes agriculture a playful, experiential, and empowering subject. His Institute of Sustainable Agriculture & Rural Development (ISARD) in Dibrugarh offers formal training and mentoring to youth, government staff, and NGOs.

At his Integrated Natural Farming Farm School in Tinsukia, he works with school dropouts who not only complete their education through NIOS but emerge as natural farming educators. His Attracting Students to Agripreneurship Program (ASAP) has inspired hundreds of students to take pride in farming, some of whom now run their own micro-enterprises in composting and nursery production.

In 2023, Samir was honored as an ORA India Fellow under the prestigious Omega Resilience Awards (ORA), an international platform that recognizes exceptional social innovators advancing resilience and climate-smart development. ORA identified his transformative interventions including agroecological food forests, regenerative farming systems, youth agripreneurship, and large-scale native tree plantations as impactful solutions to environmental and livelihood challenges in the Eastern Himalayas. Over the years, his unwavering commitment to ecological farming and rural empowerment has also earned him numerous national accolades: the Pragati Puraskar from ICAR-AIASA for pioneering grassroots agricultural extension and climate-resilient farming; the Best Agripreneur of India Award (2017) from MANAGE for developing a farmer-led agri-service brand; the Krishak Ratna Award (2018) from Orchid India and AAU for leadership in agroecological transformation; and the Innovative Farmer Award (2019) from IARI for region-specific natural farming models that shaped policy and practice.

He was further recognized with the Krishak Kalakar Award by Assam Down Town University for creatively linking agriculture with cultural revival, and the Krishi Samman Award by Sonalika Tractors India for his grassroots innovations. Adding to these achievements, Samir proudly served as a member of the Board of Management at Assam Agricultural University, where he represented the voice of grassroots innovation at the highest levels of academic and institutional decision-making.

MAN AND THE WILD - THE MOVIE

A film is made which acclaimed many International and National awards in film festivals on Samir Bordoloi & his model of farming as a contended and happy lifestyle.

LEGACY IN MOTION: A SINGLE MAN ARMY BECOMES A FOREST

What started as one man's mission to "become a plant doctor" has now grown into a forest of movements in knowledge, action, and impact. Farmer Samir Bordoloi is more than a name, it is a brand of hope, resilience, and scientific humility.

Through the Green Commandos, he has proved that young hands can rebuild degraded ecosystems. Through his methods, he has shown that local wisdom + agroecology=scalable sustainability. And through his partnerships and publications, he has built a bridge between rural realities and global solutions.

In an era of climate crisis, Farmer Samir Bordoloi and his Green Commandos offer a living, thriving alternative, where farming is not just survival, but a joyful, dignified act of coexistence with nature.



Badrul Islam Khan

Fasal Biotech Industries

Contemporary agriculture has undergone a remarkable transformation, shifting its reliance almost entirely toward hybrid and selectively bred seed varieties, particularly in vegetable and field crops. The age of cultivating indigenous local varieties has nearly disappeared, primarily due to the ever-growing pressure of population and the corresponding increase in food demand. Farmers are now compelled to maximize production from every available unit of land, a necessity that has led to the rising demand for high-yielding varieties year after year. While these improved varieties promise greater yields, they simultaneously present new challenges, as they are more vulnerable to pest infestations, plant diseases and environmental adversities. Consequently, the requirement for agricultural inputs such as agro-chemicals, micronutrients, and plant growth regulators has become not just common, but indispensable in sustaining modern farming practices.



MY JOURNEY

My professional journey in this field began immediately after completing my post-graduation from Assam Agricultural University, Jorhat, in 1996, where I specialized in Tea Husbandry and Technology. I entered the agro-chemical industry and devoted myself to it with unwavering commitment.

Over the years, I served as a Manager in three multinational companies, where I was entrusted with responsibilities covering Assam as well as other northeastern states. These years provided me not only with invaluable exposure to the nuances of sales and marketing but also with deep insights into the struggles and aspirations of farmers in the region. With this foundation of experience, I felt the need to create something of my own, and in 2019, I established Fasal Biotech Industries, headquartered in Tezpur. My firm primarily deals in micronutrients, plant growth regulators, and seeds. While we function as traders rather than manufacturers, I have entered into agreements with reputed manufacturing partners who supply quality products under my own trade name.



From the very inception, I ensured that all statutory requirements and government norms were meticulously fulfilled so that the business could operate seamlessly in Assam. Over the years, the enterprise has grown steadily, guided by the values of trust, quality, and service to the farming community.

CHALLENGES AND OUTREACH

The journey of establishing a business in agriculture is far from easy. The foremost challenges lie in the requirements of land, infrastructure, and substantial initial capital investment. Access to financial assistance from banks or other institutions often comes only after the business has proven its stability and credibility in the market. Farmers form the ultimate customer base for our products, and reaching them requires a robust and dependable network of distributors, dealers, and retailers spread across different regions. Beyond this, building awareness and generating demand is a continuous process, which we address by deploying trained field personnel who work directly with farmers. These professionals conduct demonstrations, guide farmers on product usage, and provide consistent follow-up, thereby ensuring that trust and confidence in the products are gradually built.

RISKS IN THE BUSINESS

Operating an agro-input business involves navigating a series of risks and uncertainties. The success of the enterprise is heavily dependent on agro-climatic conditions, which means that anticipation and forecasting of weather play a crucial role in planning product placement. The market is largely credit-driven, making it essential to maintain strong relationships with dealers in order to ensure both the growth of sales and the timely realization of payments. Farmers, many of whom are less formally educated, often rely on local dealers for advice, yet these dealers themselves may not possess sufficient technical knowledge to diagnose problems accurately. This creates challenges in the proper identification of pest infestations, disease symptoms, and nutritional deficiencies.

Adding to this, the marketing of agricultural produce, especially perishable commodities like vegetables, is highly unstable. The lack of adequate cold storage facilities in the state often prevents farmers from receiving fair prices, which directly impacts their economic condition and, in turn, influences the entire business chain. The unpredictability of climatic conditions during peak crop-growing periods further aggravates these challenges, making agribusiness a venture that demands resilience, foresight, and adaptability.

ROLE OF EDUCATION AND TRAINING

In such a complex and demanding sector, the importance of agricultural education cannot be overstated. Technical knowledge equips entrepreneurs with the ability to guide farmers effectively, demonstrate the scientific rationale behind products and build their confidence in adopting them. With hundreds of agro-input companies already operating in Assam, the demand for skilled and hardworking agricultural graduates is constant and promises ample opportunities for employment.

My own career was enriched by specialized training, which I received through a three-month program organized by the National Institute of Agricultural Extension Management (MANAGE), Hyderabad, conducted in Guwahati. This training not only broadened my professional perspective but also instilled in me the confidence and competence required to set up and manage my own enterprise.

KNOWLEDGE, SKILLS AND GUIDANCE

For aspiring entrepreneurs, it is essential to possess a comprehensive understanding of the geography, crop systems, and market dynamics of different regions. Mastery in sales and marketing is equally critical, as it forms the backbone of business growth.

The most practical way to acquire such expertise is to begin by working with an established agro-chemical company, where one can gain firsthand experience, develop networks, and learn the nuances of the trade before taking the leap into independent entrepreneurship.

Computer literacy is no longer optional but rather a fundamental requirement in the private sector. Proficiency in digital tools is vital for managing data, communication, business transactions, and overall efficiency. Alongside technical skills, qualities such as perseverance, adaptability, and integrity serve as the cornerstones of a successful entrepreneurial journey.

GUIDANCE FOR AGRICULTURE STUDENTS

For agriculture students who aspire to pursue managerial roles in the private sector, certain attributes are indispensable. A strong academic foundation, coupled with the ability to communicate fluently in both English and Hindi, greatly enhances employability. Physical fitness and a willingness to travel extensively are equally important, given the field-oriented nature of the work. Alongside this, proficiency in computer applications ensures competence in modern business operations. Above all, traits such as reliability, trustworthiness, and professional commitment form the essential pillars of a rewarding career in agribusiness.



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