Activities & Achievements

2025-2026

Regional-cum-Facilitation Centre,
Eastern Region (RCFC-ER)
National Medicinal Plants Board (NMPB)
Ministry of AYUSH, Government of India
Jadavpur University, West Bengal

ACTIVITIES & ACHIEVEMENTS

2025-2026

Regional-cum-Facilitation Centre,
Eastern Region (RCFC-ER)
National Medicinal Plants Board (NMPB),
Ministry of AYUSH, Government of India
Jadavpur University, Kolkata, West Bengal

PREFACE

India is one of the world's 12 mega diversity centers having rich vegetation with approximately 47,000 plant species distributed over 15 agro-climatic zones. More than 7000 species are estimated to have medicinal usage in traditional medicines. About 1178 species of medicinal plants are estimated to be in trade of which 242 species have consumption levels exceeding 100 metric tons per year. However, the ever increasing demand on the forest resources for goods and services, the forests are under tremendous pressure and threatening the delicate balance between the availability and utilization. With no exception, the availability of medicinal plants is sharply declining and subsequently, the cultivation of medicinal plants has started gaining momentum. In order to promote medicinal plants sector, Government of India has set up National Medicinal Plants Board (NMPB) in the year 2000 which is currently working under the Ministry of AYUSH, Government of India. The primary mandate of NMPB is to develop an appropriate mechanism for coordination between various ministries, departments, organization and implementation of support policies and programs for overall (conservation, cultivation, trade and export) growth of medicinal plants at the State, National and International level.

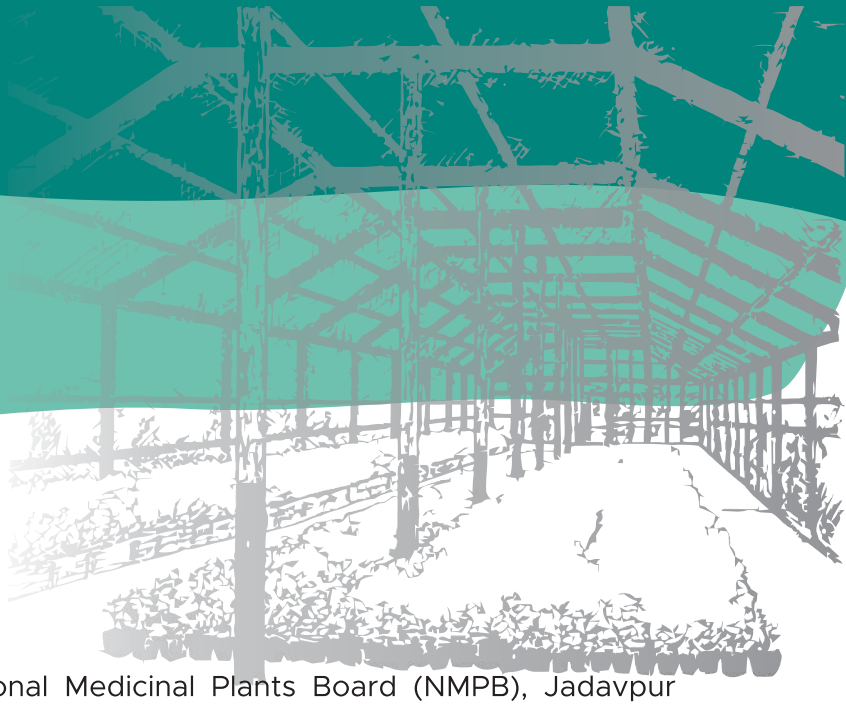
Jadavpur University is a State unitary University that has been functioning since 1955. Over the years, it has been emerged as a premier institution of higher education & research in India. As per the National Institute of Framework (NIRF) 2025 rankings, the University has ranked 1st in the State Public University Category, 9th in the University category, & 18th in overall category, reflecting its continued academic excellence & institutional performance in 2025. It is ranked 676 in QS World University rankings & 214 in Asian University rankings in 2026. The University is also one of the first five universities in the country recognized by University Grant Commission as a University with Potential for Excellence. The National Assessment and Accreditation Council (NAAC) has re-accredited the University with the highest grade 'A+'. It is the first Indian University to earn SYLFF status from Nippon Foundation.

The University has four Faculties: Arts; Science; Engineering and Technology; Interdisciplinary Studies, Law and management. 37 departments, 21 interdisciplinary schools and 45 Centres are strewn over two sprawling campuses in Kolkata.

The works details incorporated in this report have been implemented by this RCFC-ER, NMPB, Jadavpur University during 2025-26. The details were also communicated to NMPB in the form of monthly progress reports. I wish to take this opportunity to thank National Medicinal Plants Board, especially Chief Executive Officer, NMPB, for funding and all stakeholders of the region for facilitating successful implementation of the programmes as well as carrying forward the takeaways for overall promotion of medicinal plants sector. I like to record my sincere thanks to Honorable Vice-Chancellor; Pro Vice-Chancellor; Registrar; Finance Officer of Jadavpur University for their valuable advice and support for our endeavor. I am sure that this publication would facilitate the NMPB to review the work of RCFC-ER and to set further directives, and enables the RCFC to explore opportunities to flourish. I fervently hope that the information contain in the report will be of immense importance and help to everyone concerned with the medicinal plants sector. Any feedback is always welcome so as to improve the future versions.

Prof. Asis Mazumdar
PI cum Nodal Coordinator
31st March 2026

Brief of Regional cum Facilitation Centre Eastern Region (RCFC-ER)



Regional-cum-Facilitation Centre (RCFC), National Medicinal Plants Board (NMPB), Jadavpur University has been established as one of the seven such Centers in different regions (East, West, North-I, North-II, South, Central and North East) of the country under the Ministry of AYUSH, Government of India during 2017-18. This RCFC, established by NMPB for Eastern Region acts as one stop center for the growers, cultivators, researchers, traders and other stakeholders of medicinal plants. This center caters to the states of Bihar, Jharkhand, Odisha, Sikkim and West Bengal and functions in close co-ordination with State Medicinal Plants Boards (SMPBs), the State implementing agency of the medicinal plants component of the AYUSH Mission. The RCFC, NMPB provides a service window for growers of medicinal plants for supporting conservation, development, marketing, cultivation and provide handholding support to stakeholders in terms of technology dissemination and also for establishing primary processing facilities, undertaking identified research relevant to the area concerned etc. besides conducting monitoring & evaluations of ongoing as well as completed projects funded by NMPB as and when assigned.

The major functions of the RCFC-ER, NMPB are:

- To act as multifaceted facilitating arm of NMPB
- Development of Quality Planting Materials (QPM)
- Development of Agro technology of medicinal plants
- Setting up of primary processing, grading, marketing facilities
- To develop managerial and technical skill among the stakeholders
- Facilitation of sale of medicinal plants and produces
- To provide inputs on conservation, sustainable cultivation, technology upgradation, training & research
- Domestication of wild species in demand
- To function as a platform for bringing together the different stakeholders
- To organize periodical meetings, workshops, consultation of stakeholders
- To review of the projects sanctioned by NMPB to various organizations
- To collect and maintain database of all concerned Sectors of the Medicinal Plants in the states and Integration of database of various States of the region concerned.
- To develop strategy for Information, Education and Communication (IEC) and its implementation.
- To document and disseminate success stories of activities supported by NMPB.

Recognition & Award

RCFC-East's outstanding performance and significant contribution to the promotion of the medicinal and aromatic plants sector received national recognition. In recognition of its exemplary work, RCFC-East was conferred the Excellence Award (Gold) for the Best Performing Regional cum Facilitation Centre during the "Chintan Shivir for Medicinal Plants – A Stakeholder Meet on New Trends in Medicinal Plants, Strengthening Cultivation, Conservation, Marketing Linkages, and Sustainable Utilization," organized by the National Medicinal Plants Board, Ministry of AYUSH, Government of India, on 11 February 2026 at Vigyan Bhawan.

The award was presented by Prof. (Dr.) Mahesh Kumar Dadhich, Chief Executive Officer, National Medicinal Plants Board, Ministry of Ayush, Government of India. This prestigious recognition stands as a testament to RCFC-East's impactful initiatives, visionary leadership, and sustained efforts over the past two years in advancing the medicinal and aromatic plants sector.

CONTENTS

SECTION

01

STAKEHOLDERS' MEETS / SEMINARS / BUYER-SELLER MEETS

Stakeholders' Meet on Medicinal Plants in West Bengal

5th July, 2025 at Balurghat, West Bengal

Objective: The primary aim of the programme was to promote the cultivation and marketing of medicinal plants by bringing together all key stakeholders onto a single platform. These stakeholders included DDM NABARD, Balurghat, Dakshin Dinajpur; LDM, Balurghat, Dakshin Dinajpur; Krishi Vigyan Kendra, Dakshin Dinajpur; FPOs/FPCs, NGOs, farmers/cultivators, traditional practitioners, entrepreneurs, traders, and industry personnel. In addition to raising awareness about the cultivation, value-addition and marketing of medicinal plants through forward and backward linkages. The Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India, Jadavpur University, played a pivotal role in facilitating these linkages, disseminating technical knowledge, and conducting promotional activities to facilitate the stakeholders.

Number & Composition of Participants: Total **116 nos.** of stakeholders participated including Government officials, district level officers, cultivators from both Balurghat & Hilly region, traders, researchers, entrepreneurs, FPC/FPO representatives, and industry experts actively took part in the event.

Description: The programme commenced with the ceremonial lighting of the lamp, followed by a welcome address delivered by Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU who outlined the objectives of the meet and its importance in fostering sustainable practices for medicinal plant cultivation and marketing. He further elaborated on the various initiatives and schemes of the National Medicinal Plants Board (NMPB) and articulated the objectives of RCFC-ER in fostering the growth and development of the medicinal plant sector in India, particularly in eastern region.

The event was graced by Dr. Sukanta Majumdar, Hon'ble Union Minister of State in the Ministry of Education and Ministry of Development of North Eastern Region, Government of India, New Delhi. Other dignitaries present included Shri Tirthankar Biswas, DDM, NABARD, Balurghat, Dakshin Dinajpur; Shri Kaushal Kishore, LDM, Balurghat, Dakshin Dinajpur; Dr. Biswajit Goswami, SMS, KVK, Dakshin Dinajpur, UBKV, Majhian; and Dr. Tarun Kumar Das, Former Assistant Director of Farms, Regional Research Station, Old Alluvial Zone, UBKV, Majhian.

Shri Tirthankar Biswas emphasized the importance of acquiring proper market knowledge, citing his own experience with the cultivation of Ayapan (*Ayapana triplinervis*) without sufficient market research, which subsequently led to difficulties in selling the harvest. Shri Kaushal Kishore outlined various schemes available under the agriculture sector for medicinal plant cultivation, as well as MSME loan facilities for product manufacturing. He also elaborated on the roles and benefits of institutions such as NABARD. Dr. Biswajit Goswami discussed the initiatives of the KVK and informed farmers about the institute's scientific research capabilities. He further stressed the need for conducting field trials prior to undertaking large-scale cultivation of medicinal plants.

The technical sessions covered topics such as commercial cultivation, post-harvest management, value addition, quality control, entrepreneurship, and market linkages, with expert insights from Shri S.K. Das, Former Member of the Advisory Committee, NMPB, MoAYUSH, Govt. of India, Director, Phytobiox Manufactures Pvt. Ltd., & Founder of Sosunum FPC, Odisha; Dr. Soumyajit Biswas, Project Manager, RCFC-ER, NMPB, JU; Mr. Shantanu Chakraborty, Project Consultant (Technical), RCFC-ER, NMPB, JU; Shri Arup Kumar Dutta, CEO, Krishikanti Hilly Block FPC Ltd.; Shri Abhijit Ghosh, Chief Advisor, NEPO Agro FPO Multipurpose Cooperative Society Ltd. Nadia; and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, JU. Shri S.K. Das discussed various types of medicinal plant cultivation, including Tulsi, Nagarmotha, Mint, and Sarpagandha, and emphasized the importance of value addition at the farmers' level to maximize returns and facilitate easier marketability of the produce. Mr. Shantanu Chakraborty underscored the potential of small-scale value addition in developing medicinal plant-based products and highlighted opportunities for selling these products through

online marketing platforms. He also showcased a range of stevia-based products developed under his supervision and shared examples of successful entrepreneurial ventures currently supported by the government, along with emerging market opportunities.

Hon'ble Minister Dr. Sukanta Majumdar also highlighted the importance of integrating technology into the cultivation of medicinal plants, stressing the need for practical and efficient methods to meet growing demand and ensure a steady supply. The main emphasize was given on locally available medicinal plants commercial cultivation like Tulsi (*Ocimum tenuiflorum*), Bach (*Acorus calamus*), Ashwagandha (*Withania somnifera*), Ekangi (*Kaempferia galanga*), Aloevera (*Aloe vera*), Nagarmotha (*Cyperus rotundus*), Moringa (*Moringa oleifera*), Sarpagandha (*Rauvolfia serpentina*), Curry Leaves (*Murraya koenigii*), and Mint (*Mentha arvensis*) etc. Discussions were also held integrating scientific methods on local processing for better earning potential.

A special presentation on the e-Charak online marketplace for medicinal plants was also conducted. The meet served as a vital platform for knowledge exchange and networking among various stakeholders.

Outcomes/Recommendations:

The major focus of the programme and deliberations by the resource persons included:

- Creation of database of locally available medicinal plants along with their availability.
- Entrepreneurship development through advancing value addition like extraction of oil and marketing of commercially cultivated medicinal plants through robust forward and backward linkage strategies.
- Integration of modern technology with cultivation and processing for better harvest along with weather forecast and real time market demand.
- Roadmap for establishing retail businesses included product identification, branding, regulatory compliance, packaging options, online marketing, and promotional strategies.
- Highlighting achievements, ongoing activities, and future plans for the development of medicinal plants in West Bengal by creating network of all stakeholders.
- The farmers were made aware about the possibilities of alternate livelihood through farming of medicinal plants. Discussions were held regarding several medicinal and aromatic plants like Tulsi (*Ocimum tenuiflorum*), Bach (*Acorus calamus*), Ashwagandha (*Withania somnifera*), Ekangi (*Kaempferia galanga*), Aloevera (*Aloe vera*), Nagarmotha (*Cyperus rotundus*), Moringa (*Moringa oleifera*), Sarpagandha (*Rauvolfia serpentina*), Curry Leaves (*Murraya koenigii*), Mint (*Mentha piperita*), Chui jhal (*Piper chaba*), Brahmi (*Bacopa monnieri*), etc.

Stakeholders' cum Buyers Sellers Meet on Medicinal Plants in Bihar

24th February, 2026, at The AVR Hotel, Patna, Bihar

Objective: The primary objective of the programme was to foster the cultivation and marketing of medicinal plants by bringing together all key stakeholders on a unified platform, thereby facilitating meaningful interaction, knowledge exchange, and collaborative opportunities. The meet specifically focused on discussing Bihar's historical ties to medicinal plants, addressing the marketing and financial problems faced by farmers, and emphasizing the need for the integration of various government departments. The Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India, Jadavpur University, has been playing a pivotal and proactive role in strengthening and sustaining these linkages among stakeholders. The programme aimed to act as a central coordinating platform, fostering collaboration among farmers, industry personnel, researchers, and government bodies. It also aimed to facilitate market and institutional linkages while actively disseminating scientific and technical knowledge related to the cultivation, post-harvest management, processing, and value addition of medicinal plants.

Number & Composition of Participants: Total **106 nos.** of stakeholders participated including government officials, representatives of FPOs, farmer clusters, NGOs, and traditional healers in Bihar, along with industry representatives and AYUSH Traders or Manufacturers.

Description: The Stakeholders' cum Buyers Sellers Meet witnessed the participation of officials from the State Medicinal Plants Board, Govt. of Bihar; State AYUSH Society, Bihar; Directorate of Horticulture, Department of Agriculture, Government of Bihar, Patna; Government Ayurved College; and ICAR–Eastern Region, Patna, Different FPOs, NGOs and Farmer Clusters to discuss strategies for advancing the medicinal plants sector in Bihar. In addition, prominent industry representatives from Bihar like Cognosmed Laboratories Pvt. Ltd., Rose Laboratories, Karbo Kissan, Visvaksenah Herbs & Aromatics Pvt. Ltd., Herbals (APS), Scientific Ayurveda, Agrasen Pharma, Zenvel Formulations, Kailasi Ayurveda, Ramlal Herbs and Suraj Pharma actively participated in the programme.

The inaugural session unfolded with the ceremonial lighting of the lamp, followed by a solemn invocation to Lord Dhanvantari, evoking the sacred and healing spirit that underpins the tradition of medicinal knowledge. Setting the tone for the proceedings, Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU, delivered the welcome address, articulating the Centre's vital role as a dynamic platform for awareness generation and meaningful stakeholder convergence. Shri Krishna Prasad, Secretary of the Medicinal Plants Growers Association of Bihar, offered valuable insights into the range of government schemes available, while candidly drawing attention to the financial hardships confronting farmers. Dr. Dineswar Prasad, Former Principal of Government Ayurved College, Patna, eloquently reflected on Bihar's deep-rooted legacy in medicinal plant heritage and underscored the pressing need for cohesive interdepartmental efforts to overcome persistent marketing challenges. Dr. Dhananjay Sharma, State Programme Officer, State AYUSH Society, Bihar, highlighted the significance of strengthening farmer awareness and championed the development of kitchen garden-based models as sustainable solutions for household healthcare. Mr. Irsad Ali Azaad, Chairman of the Bihar State Shia Waqf Board, thoughtfully outlined strategies for reinforcing the Medicinal Plants Growers Association platform, advocating for the productive utilization of public and Waqf Board lands through lease-based cultivation, and extending support to underserved communities excluded from policy benefits.

Shri Alok Kumar, CEO of the State Medicinal Plants Board Bihar, stressed the importance of fostering contract farming, promoting direct farmer–industry linkages, and ensuring enabling policy frameworks for the effective collection and conservation of medicinal plant resources. The session drew to a close with a gracious vote of thanks delivered by Dr. Soumyajit Biswas, Project Manager, RCFC-ER, NMPB, JU, marking a thoughtful conclusion to an enriching and purposeful inaugural session.

The first technical session unfolded as a rich confluence of knowledge, focusing on the sustainable collection, commercial cultivation, and post-harvest management of medicinal plants in Bihar. The discourse was thoughtfully guided by Dr. Prabhat Kumar from Bihar Agriculture University, Sabour and Dr. Tanmay Kr. Koley from ICAR-ER, Patna whose insights illuminated both scientific and practical dimensions of the sector. During the ensuing deliberations on quality testing and value addition, Shri Alok Gupta of Rose Laboratories offered a compelling glimpse into his company's diverse portfolio of over 300 products, including Punarnava and Giloy, while emphasizing that the true efficacy of herbal formulations lies in the use of fresh, high-quality raw materials. Complementing this perspective, Dr. Ajay Kumar from Scientific Ayurved Research & Production Laboratory, passionately advocated for the organization of farmer groups across Bihar and called for the introduction of an L1 tender system that not only ensures competitiveness but firmly prioritizes quality.

The second technical session evolved into a vibrant and engaging interface between growers and buyers, fostering dialogue that bridged field realities with market expectations. Rajkumar, a veteran farmer with over two decades of experience, articulated the urgent need for structured contract farming as a means to ensure stability and fair returns. Shri Krishna Gopal Singh, Visvaksenah Herbs & Aromatics Pvt. Ltd., emphasized for a cluster-based cultivation model tailored to agro-climatic suitability, highlighting the vast market potential spanning more than 170 crop varieties. Building on this vision, Dr. Saket Kumar Singh, Herbals (Aps) Pvt. Ltd., proposed the establishment of common collection centres inspired by the successful cooperative framework of Amul, alongside dedicated information hubs to enhance access to technology and conservation practices. Shri Sudhir Kumar, from Medicinal Plants Growers Association of Bihar (MAPGAB), reflected on the enduring relevance of natural remedies in everyday life and the collective responsibility towards conservation. The session was further enriched by a moment of honor, as Shri Subodh Kumar was conferred with the Lifetime Achievement Award presented by Medicinal Plants Growers Association of Bihar in recognition of his unwavering dedication and lifelong contributions to the medicinal plants sector.

Adding a dynamic and experiential dimension to the programme, several AYUSH manufacturers and traders set up vibrant display stalls, showcasing a diverse array of important medicinal plant parts alongside a wide range of value-added products. These exhibits provided participants with an opportunity to engage directly with industry stakeholders, gain practical insights into product development, and appreciate the commercial potential of medicinal plant resources.

Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, JU familiarized the participants with e-Charak, an online marketplace designed for medicinal plants.

The programme gracefully culminated with a valedictory session, highlighted by the distribution of certificates to participants and day long sessions with meaningful knowledge exchange, collaborative spirit, and a collective resolve to advance the medicinal plants sector.

Outcomes/Recommendations: The major focus of the deliberations highlighted the critical need for department integration to help farmers effectively market their produce.

- A strong consensus was reached on the need for department integration to support farmers in marketing and financing their produce.
- Stakeholders recommended adopting cluster-based models for collection and establishing an information center for technology, cultivation, and conservation.
- Contract farming and direct sourcing from farmers to industries were highly recommended to ensure quality and reliable income.
- Proposals were made to utilize unutilized public /waste land on lease for medicinal plant cultivation.
- The creation of dedicated groups for Bihar farmers and prioritizing quality in tenders (L1) was suggested to boost the local sector.

Stakeholders' cum Buyers Sellers Meet on Medicinal Plants in Odisha

13th March, 2026, at The Presidency, Bhubaneswar, Odisha

Objective: The primary objective of the programme is to create an effective platform that brings together key stakeholders—including farmers, traders, industry representatives, researchers, and government agencies—to facilitate direct interaction, strengthen market linkages, and promote the sustainable development of the medicinal plants sector in Odisha. The meet aims to enhance awareness on scientific cultivation, post-harvest management, and value addition practices, while also addressing challenges related to marketing, pricing, and quality standards. Additionally, it seeks to encourage contract farming, cluster based approaches, and institutional support mechanisms to ensure better income opportunities for farmers and a reliable supply chain for industry stakeholders.

Number & Composition of Participants: Total **101 nos.** of stakeholders participated in the event, officials from the State Medicinal Plants Board (Govt. of Odisha), Agriculture Promotion & Investment Cooperaration of Odisha Limited, Department of Agriculture and Farmers' Empowerment, State AYUSH Mission, Directorate of Horticulture, Department of Forest, Environment and Climate Change, Farmer Producer Organizations (FPOs), farmers and cultivators, traditional practitioners, entrepreneurs, traders, and industry personnel. Prominent participants included representatives from VeloExim Pvt. Ltd., Zoltar Exim LLC, Phytomark Labs Pvt. Ltd., and various

Description: The State Level Stakeholders' cum Buyers'-Sellers' Meet on Medicinal Plants brought together experts, government officials, industry leaders, and farmers to discuss strategies for advancing the medicinal plants sector, held at Bhubaneswar.

The inaugural session commenced with a warm welcome address by Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU, who set the tone for the programme by highlighting the importance of collaborative platforms in strengthening the medicinal plants sector and fostering meaningful engagement among diverse stakeholders. This was followed by the inaugural address delivered by Shri Karthik V., IFS, Chief Executive Officer, State Medicinal Plants Board (SMPB), Government of Odisha. In his address, he elaborated on the mandate and strategic initiatives of the SMPB, with particular emphasis on the systematic streamlining of Non-Timber Forest Produce (NTFP) collection. He highlighted the active involvement of over 1600 nos. Vana Samrakshana Samithis (VSS) in the collection, primary processing, and management of medicinal plant resources across the state. While acknowledging these efforts, he also underscored the pressing need for enhanced infrastructure, capacity building, and dedicated financial support for training to further strengthen grassroots-level operations.

Shri S. Mishra, Managing Director, Agricultural Promotion and Investment Corporation of Odisha Limited (APICOL), addressed the gathering with a focus on promoting awareness and accessibility of government schemes aimed at supporting farmers and entrepreneurs. He encouraged participants to actively engage with APICOL initiatives, stressing the importance of fostering authentic, high-quality products in the market while minimizing the circulation of spurious and substandard goods. His address reinforced the role of institutional support in nurturing sustainable and credible value chains. Adding a regulatory and quality-focused perspective, Dr. Gaurav Giri, Asst. Drug Controller, Directorate of AYUSH, emphasized the critical importance of adopting organic cultivation practices, free from harmful heavy metals and pesticides, to ensure the safety and efficacy of medicinal plant-based products. He also introduced the participants to the e-AYUSH portal, elaborating on its role in streamlining licensing procedures and enhancing transparency and efficiency within the sector. The session concluded with a formal vote of thanks given by Dr. Soumyajit Biswas, Project Manager, RCFC-ER, NMPB, JU, who expressed sincere gratitude to all dignitaries, participants, and organizers for their valuable contributions, marking a thoughtful and inspiring beginning to the programme.

The first technical session featured a panel discussion on Supply Chain Management and Small Scale Value Addition Opportunities of MAPs, moderated by Shri Shantanu Chakraborty, Project Consultant (Technical), RCFC-ER, NMPB, JU. He highlighted the demand and supply unpredictability that causes plight for farmers, noting that MAP farming provides more remuneration but

is riskier than normal agriculture. Shri S.K. Das, Monitoring Expert of MAPs & Former member of the Advisory Committee, NMPB, MoAYUSH, GOI and Prof. of Practice, OUAT, advised cultivating only those plants with demand and discussed cultivation designs like mono-cropping and multi-tier cropping. Dr. Dhanabal Kumarswamy, Phytomark Labs Pvt. Ltd., Kanpur, UP, emphasized the need for a sustainable supply chain and logical pricing, noting that the future stands in quality and phytochemical analysis. Shri Amlan Patnaik, VeloExim Pvt. Ltd., Odisha discussed volume constraints, stating the necessity for safety data sheets, proper labeling, and tariffs for transporting medicinal plant extract oils. Shri Ramkrishna Sastry, Zoltar Exim LLC, Dubai, provided insights into exporting to Dubai and Vietnam, mentioning the huge requirement for aromatherapy, massage oils, and spices in GCC and Asian countries, which can yield profits of around 6 to 8 times. Mr. Pinak Dan, a progressive farmer and aspiring entrepreneur from Leaf & Root Wellbeing Company, shared his journey and experiences, emphasizing the importance of starting on a small scale to assess market viability, as well as highlighting the crucial role of aggregators in effective marketing. Shri Abhijit Ghosh, Advisor, NEPO Agro FPO Multipurpose Cooperative Society, West Bengal, offered to assist FPOs and farmer clusters with minimal interest loans and discussed the profitability of inter-cropping with crops like Ekangi and Ashwagandha. Shri Babu Dixit, renowned wholesale trader from U.P. highlighted the effect of price fluctuation in supply chain and authenticate sourcing of raw materials.

The second technical session focused on Local Medicinal and Aromatic Plants Business Opportunities, Shri N.S.J.P. Singh, OFS, Dy. Conservator of Forests (Retd.), Department of Forest, Environment and Climate Change, Govt. of Odisha stated that medicinal plant cultivation gives better returns than rice and emphasized the need for certified seeds. Shri Hari Pangi, SGHM & TTRC, Koraput shared his experience of serving 30 districts in Odisha, noting that converting rice cultivators to medicinal plant cultivators successfully increased their income. Shri Alok Pattanaik, Medicinal Plants Grower and Shri Ashok Patra, Srikhetra Herbals, Puri, discussed their experiences cultivating major potential plants in Odisha like Tulsi (*Ocimum tenuiflorum*), Lemongrass (*Cymbopogon citratus*), Vetiver (*Chrysopogon zizanioides*), Eucalyptus (*Eucalyptus globulus*), and Nagarmotha (*Cyperus rotundus*) are widely recognized medicinal and aromatic plants for their therapeutic and commercial value.

Following the technical sessions, Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, JU delivered a presentation on e-Charak, an online marketplace designed for medicinal plants.

Bringing a lively and interactive element to the programme, a number of AYUSH manufacturers and traders curated engaging exhibition stalls featuring an extensive collection of key medicinal plants raw materials and an array of processed and value-added products.

The programme concluded with a formal valedictory session, which provided an opportunity to reflect on the key deliberations, insights, and outcomes of the day. The session highlighted the collective learning, meaningful exchanges, and the strengthened linkages established among stakeholders across the medicinal plants value chain. This was followed by the distribution of certificates to all participants, acknowledging their active involvement and contribution to the programme.

Outcomes/Recommendations: The major focus of the programme and deliberations included enhancing the promotion of cultivation, sustainable harvesting, and domestication of medicinal plants in Odisha to improve the livelihoods of farmers. Stakeholders strongly recommended contract farming and cultivating specific crops based strictly on market demand to mitigate the risks associated with price unpredictability. Experts heavily emphasized that cultivation should focus on organic, pesticide-free, and heavy metal-free practices to meet quality standards and facilitate both domestic and international markets. Furthermore, attendees were encouraged to leverage government schemes through APICOL and utilize digital platforms like e-commerce and e-Charak for wider market access. Developing sustainable supply chains with proper value addition, certification, and labeling was identified as a critical step to unlock high-profit export markets in regions like the UAE, GCC countries, and Europe

State Level Stakeholders' cum Buyers Sellers Meet on Medicinal Plants in Jharkhand

23rd March, 2026, at Hotel AVN Grand, Ranchi, Jharkhand

Objective: The programme aims to establish a dedicated forum for farmers, buyers, traders, researchers, and government stakeholders to interact and collaborate for the development of the medicinal plants sector in Jharkhand. It focuses on strengthening market linkages by facilitating direct buyer–seller interactions to ensure better price realization and reduce intermediaries. The meet also emphasizes promoting scientific cultivation practices, sustainable harvesting, post-harvest management, and value addition of medicinal plants. Additionally, it seeks to address existing challenges in marketing and supply chains, while encouraging institutional support and coordinated efforts for the conservation and commercial growth of medicinal plant resources in the state.

Number & Composition of Participants: Total **135 nos.** of stakeholders participated, including government officials, scientists, researchers, NMPB project implementers, traders, FPC/FPO members, industry representatives, traditional practitioners (Vaidyas), experts, and farmers.

Description: The Stakeholders' Meet on Medicinal Plants in Jharkhand brought together a diverse group of experts, government officials, industry representatives, and farmers to deliberate on strategies for strengthening and advancing the medicinal plants sector in the state. The programme served as an important forum for knowledge exchange, policy dialogue, and fostering collaboration among key stakeholders. The inaugural session began with a warm welcome address delivered by Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU, who set the tone for the event by emphasizing the importance of coordinated efforts in promoting medicinal plant cultivation and market integration. The session was graced by Dr. Abdul Qayum, IFS, Deputy Chief Executive Officer (Director Technical), National Medicinal Plants Board, Ministry of AYUSH, Govt. of India as the Guest of Honor. In his address, he highlighted the rapid growth of the medicinal plants sector and the expanding market for AYUSH products at both national and global levels. He elaborated on key initiatives of the National Medicinal Plants Board, including the provision of free Quality Planting Material (QPM), the development of the e-Charak platform for digital trade facilitation, and a mobile application aimed at providing real-time, location-based price information. He also discussed the significance of the Mission for Integrated Development of Horticulture (MIDH) in promoting a holistic approach by organizing farmers into collectives, enhancing production, increasing income levels, and ensuring nutritional security. Dr. Sujeet Kumar, Joint Director (Drugs), State Drug Control Directorate, emphasized the growing demand for medicinal plants in the pharmaceutical industry. He noted that Ayurvedic products are gaining widespread acceptance due to their minimal side effects, making them increasingly relevant in contemporary healthcare systems. Dr. Krishna Kumar, Deputy Director (Ay.), Directorate of AYUSH, Government of Jharkhand, highlighted the transformative role of technology in the sector. He discussed how digital tools can optimize supply chains, streamline quality control processes, and improve traceability of raw materials. He also stressed the importance of forming Farmer Producer Organizations (FPOs) to ensure consistent supply, empower rural cultivators, and enhance their bargaining power. Furthermore, he underscored the need to position Ayurvedic products as evidence-based wellness solutions in the global market. Adding to the discussion, Dr. Asmita Kant from the Directorate of Horticulture, Government of Jharkhand, elaborated further on the MIDH scheme, emphasizing its role in supporting farmers through financial assistance, capacity building, and infrastructure development. She also highlighted the increasing export potential and market demand for medicinal plants.

The inaugural session concluded with a formal vote of thanks delivered by Dr. Soumyajit Biswas, Project Manager, RCFC-ER, NMPB, JU, who expressed gratitude to all dignitaries, participants, and organizers for their valuable contributions and active participation, marking a successful beginning to the meet.

The first technical session focused on Cultivation, Supply chain Management & Value Addition Opportunities of Medicinal Plants in Jharkhand. Shri S.K. Das, Monitoring Expert of MAPs & Former member of the Advisory Committee, NMPB, MoAYUSH, GOI and Prof. of Practice, OUAT discussed the cultivation of commercially important medicinal and aromatic plants like Bach, Curry Leaves, Eucalyptus, Tejpatta, Sarpagandha, Nagarmotha, Lemongrass etc. Shri Shantanu Chakraborty, Project Consultant (Technical), RCFC-ER, NMPB, JU, addressed the huge demand for medicinal plant oil extraction, providing detailed procedures for post-harvest management including small-scale value addition to increase profitability. He also stressed upon to use the digital platform – an unbiased marketing tool in modern era. Shri Tapas Ranjan Behera, SPM at the Jharkhand State Livelihood Promotion Society, shared insights on incubation cells and FPOs, expressing his plans to cultivate medicinal plants in Netarhat. Dr. Bal Krishna Jha, Principal Scientist at ICAR-RCER, pointed out that Jharkhand's biodiversity includes nearly 160 traditional herbs, advocating for crop diversification with rice and contractual farming based on agro-climatic conditions. Dr. Kaushal Kumar, Head of the Department of Forests Product & Utilization at BAU, shared his work on 13 medicinal plants and creating an agro model in 5 villages in Jharkhand.

The second technical session served as an Exclusive Interface Programme for Medicinal Plants Growers & Buyers. Shri N. Shankar discussed his reverse engineering approach to extraction machinery and exporting to the UAE, Oman, Nepal and South Africa. Shri Asis Somani, Founder, Karbo Kisaan, explained how his company supports farmers with proper cultivation techniques, maintaining minimum cluster sizes for sizable yield and intercropping with Brahmi, Tulsi, and Kalmegh with rice. Industry perspectives were shared by Mr. Saurav Keshri from Vivasta Agro Botanicals, Deoghar; Mr. Sumit Kr. Pariwal from Organic Affairs, Ranchi; Mr. Ajay Tiwari from Jeebak Ayurveda, Patna; Mr. Barun Mittal from Orgatek Nature Foods Pvt. Ltd., Odisha, Mr. Sanjay Kathiar from Maa Ambe Healthcare, Jamshedpur and Mr. Ajay Chowdhury from Eco-life, Ranchi.

Farmers, including Mr. Gokul Prasad Yadav, Mr. Rajib Ranjan, Mr. Ritesh Alberts and Mr. Chambra Pareya, discussed field challenges and sustainable collection. Local Vaidyas/ traditional healers like Mr. Khuleshwar Mahato and Mr. Ganesh Mahato from Bokaro, actively requested about modernization and certification in the sector.

In addition to the deliberations, the session featured an exhibition component where various companies, traders, and manufacturers set up stalls to showcase a wide range of medicinal plant products, raw materials, value-added goods, and processing technologies. This exhibition provided participants with hands-on exposure to market-

ready products and facilitated direct business interactions between producers and buyers.

Overall, the session effectively bridged the gap between growers and buyers, fostering practical insights, market-oriented discussions, and potential collaborations within the medicinal plants sector.

Following these discussions, Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, JU delivered a presentation on e-Charak, the online marketplace for medicinal plants. The event concluded with a valedictory session and certificate distribution.

Outcomes/Recommendations:

- Enhancing and optimizing the promotion of cultivation, sustainable harvesting, and domestication of medicinal plants to improve the livelihoods of farmers.
- Advancing value addition and marketing of commercially cultivated medicinal plants through robust forward and backward linkage strategies.
- Forming and strengthening Farmer Producer Organizations (FPOs) to guarantee a reliable, sustainable supply of medicinal plants and empower rural growers.
- Integrating technology, such as the e-Charak digital platform, to facilitate direct trade, reduce intermediaries, and enhance transparency in pricing.
- Encouraging crop diversification—such as intercropping medicinal plants with traditional crops like rice—and promoting contractual farming to secure stable income for farmers.

WEBINAR 1 "Challenges & Prospects in Marketing & Value Addition of Medicinal Plants in India & Supply Chain Management"

The Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Government of India, Jadavpur University, Kolkata, organized a webinar on "Challenges & Prospects in Marketing & Value Addition of Medicinal Plants in India & Supply Chain Management" on 30th June, 2025.

The webinar aimed to provide a comprehensive platform to deliberate on the critical challenges and emerging opportunities in the marketing and supply chain management of medicinal plants in India.

The programme commenced with a welcome address by Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU. He highlighted the proactive role of RCFC-ER in creating platforms for stakeholder interaction, facilitating the farmers, industry players, and policymakers, and generating actionable insights for policy interventions. The inaugural address by Prof. (Dr.) Mahesh Kumar Dadhich, Chief Executive Officer, National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India, emphasized the mandate of NMPB in promoting conservation, cultivation, sustainable utilization, and export of medicinal plant resources, while outlining its key functions including resource conservation, farmer support, quality assurance, research, capacity building, and market linkages. He further highlighted recent initiatives aimed at strengthening forward and backward linkages through improved infrastructure for quality planting materials, post-harvest management, IEC activities, and quality testing systems. Mr. Shantanu Chakraborty, Project Consultant (Technical), RCFC-ER, NMPB, JU, elaborated on the inherent complexities and fragmentation within the medicinal plant supply chain, identifying it as a major constraint to sectoral growth.

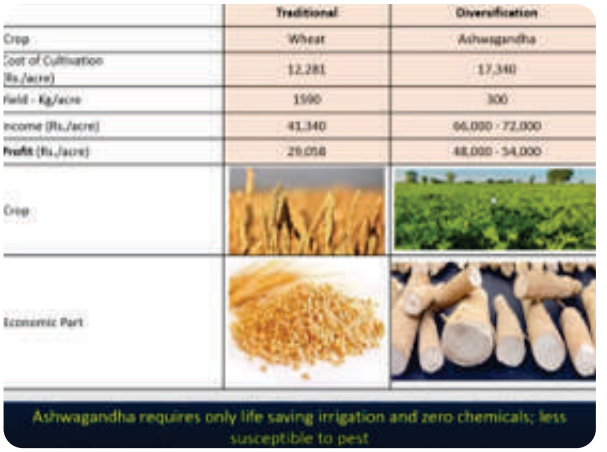
In the keynote session by Mr. Raghavendra Salagame, GM & Head - Medicinal & Aromatic Plant Extracts ITC Limited, Bengaluru, provided an in-depth analysis of market dynamics, distinguishing between traditional Ayurveda-based products and modern nutraceuticals, and noting the substantial growth of the medicinal plants product market in India, driven by evolving consumer preferences across different generations. He outlined key supply chain challenges such as inconsistent availability of raw materials, lack of scalability, authenticity and traceability issues, price volatility, and limitations in value addition due to low active ingredient content, contamination risks, and absence of grading and skilled manpower.

Further, Mr. Hitesh Patel, managing Director, K. Patel Phyto Extractions Pvt. Ltd. addressed cultivation-related challenges and growth strategies, stressing the importance of ensuring quality at the primary production stage, maintaining active ingredient content, adopting pesticide-free and organic cultivation practices, and integrating advanced technologies such as satellite mapping, drones, and AI-based farming to enhance productivity and profitability. He also underscored the

need for proper post-harvest handling, periodic seed replacement, prevention of contamination, workforce training, simplified financing mechanisms, and stronger public-private partnerships to support farmers and align production with market demands.

The interactive session further enriched the discussion, with experts, emphasizing the challenges of raw material scarcity, marketing constraints, and the necessity of long-term policy frameworks, and highlighting the importance of region-specific crop planning, establishment of regional R&D centres, and accessible quality testing facilities, while other participants stressed the need for alignment among farmers, phytochemical industries, and exporters through mentorship, capacity building, and provision of quality planting materials.

Overall, the webinar offered valuable insights into the structural, technical, and market-related challenges faced by the medicinal plant sector, while strongly advocating for a coordinated, technology-driven, and quality-focused approach supported by effective policy interventions, stakeholder collaboration, and sustainable practices to build a resilient, efficient, and globally competitive herbal ecosystem in India.

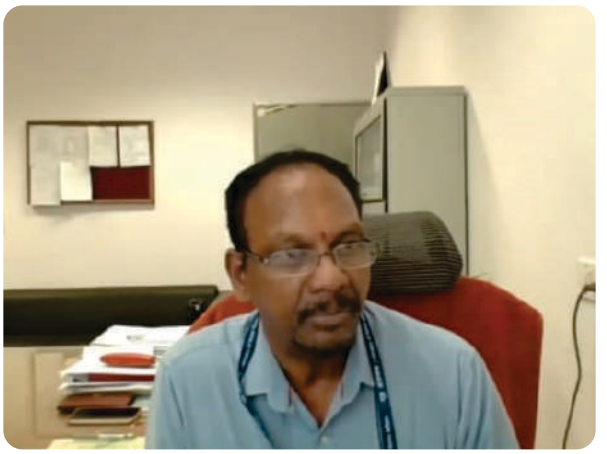


WEBINAR 2 "Regulatory Approvals and Legal Compliances for Entrepreneurs in the Medicinal Plants Sector"

The Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Government of India, Jadavpur University, Kolkata, organized a webinar on "Regulatory Approvals and Legal Compliances for Entrepreneurs/Startups in the Medicinal Plants Sector" on 15th July 2025.

The webinar aimed to guide aspiring entrepreneurs and startups through key regulatory frameworks, promote government schemes, and facilitate the establishment of compliant businesses in the medicinal plant industry.

The webinar commenced with a welcome address by Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU, who warmly greeted all participants. He highlighted RCFC-ER's initiative to organize a series of webinars aimed at strengthening supply chain management and marketing to foster the holistic development of the medicinal plants sector. He explained that the series is intended to benefit stakeholders across the value chain—including cultivators, processors, entrepreneurs, startups, and researchers—by providing strategic insights, technical expertise, and practical guidance.



Dr. R. Murugeswaran, Deputy Advisor (Medicinal Plant's), National Medicinal Plants Board, Ministry of AYUSH, Govt. of India, emphasized the role of the NMPB in promoting quality planting materials, herbal gardens, and nursery development. He acknowledged Prof. (Dr.) Asis Mazumdar and the RCFC-ER team and for successfully organizing the webinar and underlined the importance of timing and relevance in reaching the right audience.

Mr. Shantanu Chakraborty, Project Consultant (Technical), RCFC-ER, NMPB, JU highlighted the challenges faced by farmers and proposed a farm-gate value addition model to enable micro-enterprise development in the sector.

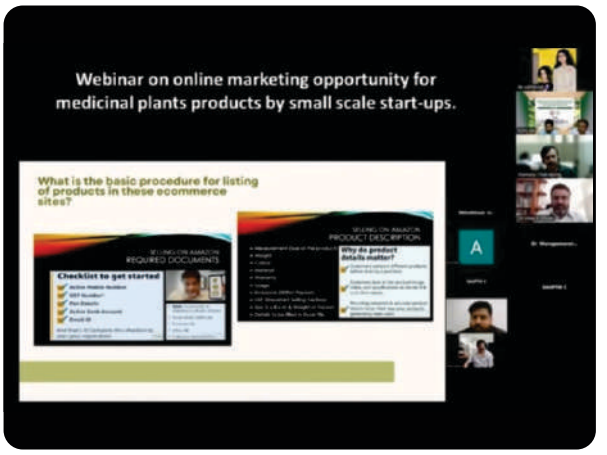
The keynote address was delivered by Mr. Vinay Dhyani, Chartered Accountant, who provided a comprehensive presentation on business structure formation and their comparative aspects. He elaborated on various organizational forms, including proprietorships, Limited Liability Partnerships (LLPs), private limited companies, and Farmer Producer Companies (FPCs), highlighting their respective liabilities, compliance requirements, and benefits.

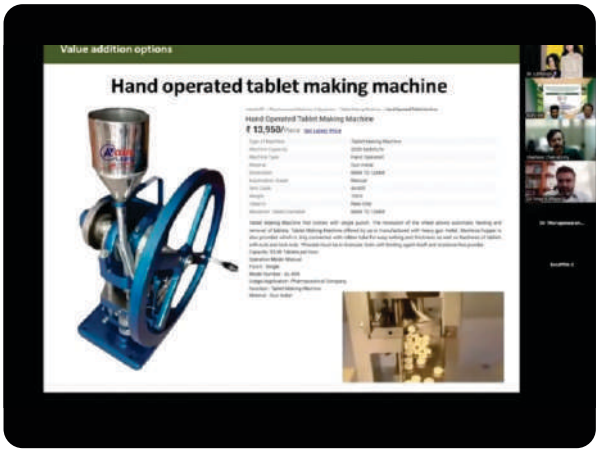
Mr. Dhyani guided participants through the procedures for obtaining export licenses and registering on the Startup India and ICEGATE portals, as well as availing mentorship opportunities and

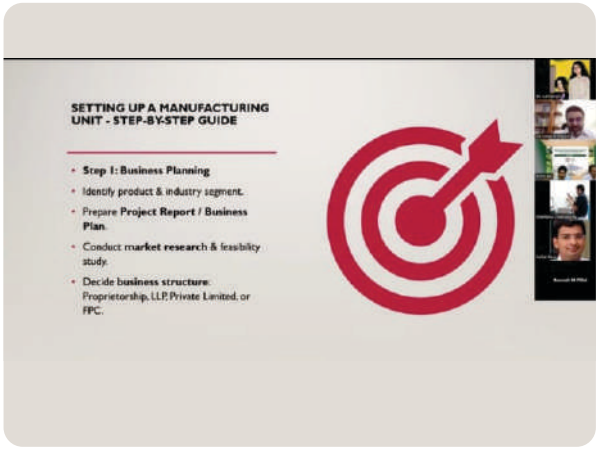
government subsidies. He also discussed technical aspects such as GST registration, labor laws, FDA norms, and the process for acquiring Pan-India marketing licenses. During the session, Mr. Dhyani offered detailed insights into trade licenses, establishment registrations, GST procedures, business structures, and export regulations. He emphasized the importance of compliance with the Drug and Cosmetic Act and adherence to Good Manufacturing Practices (GMP), particularly in the manufacturing and marketing of herbal medicines. His address provided participants with practical, actionable knowledge on business setup, regulatory compliance, and operational best practices, equipping them with the essential information required to establish and manage enterprises effectively in the herbal and allied sectors.

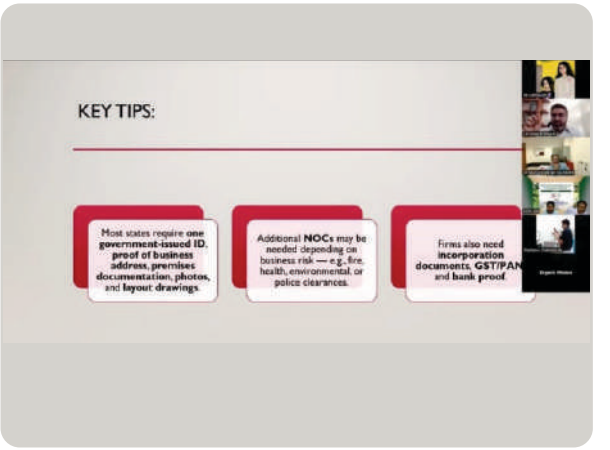
The event concluded with a set of actionable next steps including organizing a follow-up webinar with the Director General of Foreign Trade on export procedures, encouraging participants to register on the ICEGATE and Startup India portals.

The webinar was well-received and appreciated for its comprehensive coverage of regulatory, legal, and business startup requirements, positioning it as a valuable resource for emerging entrepreneurs in the medicinal plants sector.









HYBRID SEMINAR 3

"Regulatory Procedures and Compliance Framework for Export of Medicinal Plants from India"

The Regional cum Facilitation Centre – Eastern Region (RCFC-ER) organized a hybrid seminar on "Regulatory Procedures and Compliance Framework for Export of Medicinal Plants from India" on 24th July 2025 at Jadavpur University, Kolkata. The seminar aimed to equip stakeholders in the medicinal plant sector with comprehensive knowledge of regulatory processes, compliance requirements, and export facilitation measures essential for entering and sustaining presence in global markets.

The hybrid seminar commenced with a welcome address by Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU, who warmly greeted all participants and dignitaries. He highlighted that this seminar was part of RCFC-ER's broader initiative to strengthen the sector by equipping cultivators, processors, entrepreneurs, exporters, startups, and researchers with up-to-date knowledge on export procedures, legal requirements, and best practices. Prof. Mazumdar stressed that such interactive platforms not only enhance technical and regulatory awareness but also promote stronger linkages across the value chain, ultimately contributing to the sustainable growth and global competitiveness of India's medicinal plants industry.

The seminar was also graced by the physical presence of Prof. Amitava Datta, Pro-VC, Jadavpur University (JU), Shri Lakshmi Kant Halder, Joint Director, Directorate General of Foreign Trade (DGFT), Kolkata; Ms. Ishani Khaitan, Vistevia; Prof. Sanmoy Karmakar, Director, Bio Equivalence Study Centre, JU; Dr. Saikat Basu, Research Director, PFS, Lethbridge AB Canada; representatives from industries like Basant Traders, Shree Redhey Exports, Bankura Organics, Vedic Growth Consultants, NEPO Agro FPO, Kalpataru, Janus Life Sciences, Lama Pharmaceuticals, Sriniwas Herbs, including all officials of RCFC-ER, NMPB, JU. Several, Farmers group, FPO, FPC, Industry representatives also joined the seminar via online mode.

Dr. Chinmoy Rath, Research Officer (Botany) and Dr. Saurabh Sharma, Manager (Marketing & Trade) NMPB, Ministry of AYUSH, Govt. of India, shared their valuable insights via online mode, on key compliance aspects essential for exporting medicinal plants. They emphasized the importance of obtaining mandatory certifications, including Cultivation Certificates, Legal Procurement Certificates, and CITES export permits, to ensure legality and traceability of sourced materials. They also highlighted the requirement for mandatory company registration before initiating export operations, underscoring its role in regulatory compliance and market credibility. Additionally, they stressed the need for accurate product classification under Harmonized System (HS) and Indian Trade Classification (ITC) codes, as this determines applicable export regulations, duties, and

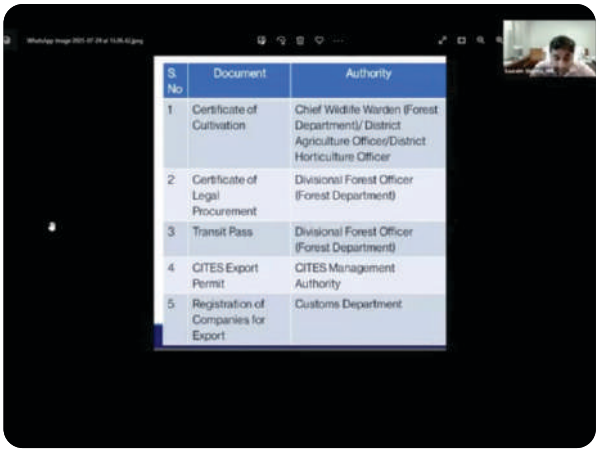
eligibility for government incentives, thereby facilitating smoother trade transactions and avoiding regulatory discrepancies.

The Keynote Address was delivered by Shri Lakshmi Kant Halder, Joint Director, Directorate General of Foreign Trade (DGFT), Kolkata. He presented a comprehensive presentation on the Foreign Trade Policy (FTP) 2023 and the procedures for applying for an Importer Exporter Code (IEC) online. He highlighted the policy's vision to boost India's exports to approximately USD 1 trillion by 2025 and around USD 2 trillion by 2030, with a focus on emerging areas such as e-commerce, developing district-level export hubs, and building Indian brands. Emphasis was placed on ease of doing business through automation, reduced transaction costs, and collaborative initiatives involving exporters, state and district authorities, and Indian missions abroad. Shri Halder outlined the role of DGFT in policy formulation, export scheme administration, and facilitation, along with guidance on identifying target markets, understanding HS codes, and completing the IEC application process. He also explained key export facilitation schemes like the EPCG Scheme, Advance Authorization Scheme, and Status Holder Certificates, as well as the benefits of India's Free Trade Agreements. Additionally, he discussed the District as Export Hub and Niryat Bandhu initiatives, highlighting MSMEs—particularly in West Bengal—as engines of economic growth, and listed both government and private entities that support exporters in market access, compliance, financing, and risk mitigation.

Following the keynote lecture discussions were held among the stakeholders on critical aspects of export compliance, stressing the importance of accurate HS/ITC code classification, securing Certificates of Origin to access preferential trade benefits, and conducting thorough market surveys before entering international markets to identify credible buyers and reduce payment risks. They encouraged exporters to leverage government support mechanisms such as the Export Credit Guarantee Corporation (ECGC) for risk coverage, the Export Promotion Capital Goods (EPCG) Scheme for capital investment support, and the Star Exporter Certification to enhance credibility and access additional benefits. The discussions also highlighted the significant role of research institutions in driving innovation in product development, improving quality standards, and fostering entrepreneurship within the medicinal plant sector. Furthermore, the need for capacity building was emphasized through continuous awareness programmes, structured training for farmers and raw material collectors, and stronger collaboration between seasoned exporters and new entrants to ensure sustainable growth and competitiveness in the global market.

The seminar concluded with a strong consensus among all stakeholders on the need for sustained

collaboration to strengthen India's position in the global medicinal plant trade. Participants agreed that staying informed about evolving export regulations, adopting best practices in compliance, and leveraging government platforms for issue resolution are essential for long-term success. The discussions underscored the importance of sustainable utilization of India's rich biodiversity, not only to boost export potential but also to enhance farmer welfare and rural livelihoods. Special mention was made of the pivotal role played by RCFC-ER, under the guidance of the National Medicinal Plants Board (NMPB), in facilitating knowledge exchange, building capacity among farmers and exporters, and acting as a bridge between industry stakeholders, policymakers, and research institutions. Their efforts in organizing awareness programmes, providing technical guidance, and promoting sustainable harvesting and cultivation practices were acknowledged as critical to ensuring both compliance and quality in exports. The event ended on a positive note, with a shared commitment to transform India's medicinal plant sector into a globally recognized and sustainable export powerhouse.



S. No	Document	Authority
1	Certificate of Cultivation	Chief Wildlife Warden (Forest Department)/ District Agriculture Officer/District Horticulture Officer
2	Certificate of Legal Procurement	Divisional Forest Officer (Forest Department)
3	Transit Pass	Divisional Forest Officer (Forest Department)
4	CITES Export Permit	CITES Management Authority
5	Registration of Companies for Export	Customs Department

SECTION

02

TRAINING PROGRAMME / WORKSHOPS

TRAINING 1 **Training on Nursery & Cultivation, PHM & Processing, Value Addition & Marketing of Medicinal Plants at Kaimur, Bihar**

Date, Venue & Participants		Resource Persons
Date	17th February 2026	1. Dr. Sadanand Rai, Senior Scientist and Head, Krishi Vigyan Kendra, Kaimur 2. Dr. Manish Kumar, Subject Matter Specialist (Soil Sc.), Krishi Vigyan Kendra, Kaimur 3. Mr. Avdhesh Kumar Sharma, Secretary of Vanvasi Seva Kendra 4. Mr. Naveen Kumar Singh, Deputy Project Director, ATMA Kaimur 5. Dr. Seema Kumari, Matter Specialist (Horticulture), Krishi Vigyan Kendra, Kaimur 6. Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU 7. Mr. Krishna Prasad, Secretary, Medicinal and Aromatic Plant Growers Association, Bihar 8. Mr. Ashish Somani, Managing Director, Karbo Kisaan, Bihar 9. Dr. Soumyajit Biswas, Project Manager, RCFC- ER, NMPB, JU
Place	Adhaura	
District	Kaimur	
State	Bihar	
Total no. of attendees	156	
Number of Farmers	71	
Number of Collectors	85	

Topics covered

1. Dr. Sadanand Rai discussed about the formation of Farmer Producer Organizations (FPOs) related to medicinal plant cultivation, and assured support in primary processing and value addition. He also deliberated the possibility of procurement and product development by their institution, emphasizing that the programme would certainly help increase the income of farmers in Kaimur.
2. Dr. Seema Kumari explained that even small-scale cultivation of medicinal plants can yield good profits if primary processing is carried out properly. She highlighted that cultivation of medicinal plants can significantly enhance farmers' income and livelihood opportunities.
3. Mr. Naveen Kumar Singh about various schemes and initiatives of ATMA and encouraged farmers to adopt group-based cultivation through Farmer Producer Organizations (FPOs) and farmer groups, which can help in improving production, marketing, and collective bargaining power.
4. Mr. Avdhesh Kumar Sharma advised farmers to focus on the cultivation of locally available and naturally occurring medicinal plants that have strong market demand, which can reduce cultivation risks and ensure better economic returns.
5. Prof. (Dr.) Asis Mazumdar provided detailed information about the objectives, schemes, and activities RCFC-ER. He also emphasized the importance of integrating cultivation with proper processing, value addition, and marketing strategies to ensure better returns for farmers and entrepreneurs engaged in the medicinal plant sector.
6. Mr. Krishna Prasad discussed the cultivation practices of important medicinal plants

suitable for the agro-climatic conditions of the Kaimur region, including Shatavari (*Asparagus racemosus*), Tulsi (*Ocimum tenuiflorum*), Sarpagandha (*Rauvolfia serpentina*), Giloy (*Tinospora cordifolia*) and Ashwagandha (*Withania somnifera*). He also provided guidance on the cultivation of aromatic plants such as Palmarosa (*Cymbopogon martinii*) and Lemongrass (*Cymbopogon citratus*), which have high demand in the essential oil and herbal industries.

7. Mr. Ashish Somani delivered a lecture on post-harvest management especially harvesting techniques of medicinal plants, highlighting the importance of proper harvesting time, drying methods and storage practices to maintain quality and thereby to enhance the market value of medicinal plants produces.
8. Dr. Soumyajit Biswas elaborated on the objectives and key components of the training programme. He explained the importance of developing a complete value chain for medicinal plants, from nursery raising and cultivation to post-harvest management, processing, and marketing, which can significantly enhance farmers' profitability. He along with Mr. Subodh Kumar, Project Technical assistant (Bihar & Jharkhand), RCFC-ER, NMPB, JU delivered a detailed presentation on commercially important medicinal plants found in the Kaimur forest area based on the preliminary survey undertaken by RCFC-ER, NMPB, JU.
9. An exhibition of medicinal plants found in Kaimur district, displayed at the venue, was one of the major attractions of the programme. The display helped participants to identify important medicinal species and understand their uses and market potential.
10. At the end of the programme, participants visited the KVK and Vanvasi Seva Kendra campus, including the Ayurvedshala, where they observed various Ayurvedic products being prepared and processed. This exposure helped them gain practical insights into the value addition and product development aspects of medicinal plants.

TRAINING 2 **Training on Nursery & Cultivation, PHM & Processing, Value Addition & Marketing of Medicinal Plants at Koraput, Odisha**

Date, Venue & Participants	
Date	6th March 2026
Place	M.S. Swaminathan Research Institute, Jeypore
District	Koraput
State	Odisha
Total no. of attendees	110
Number of Farmers	40
Number of Collectors	60

Resource Persons

1. Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU
2. Shri N.S.J.P Singh, OFS, Dy. Conservator of Forests (Retd.), Department of Forest, Environment and Climate Change, Govt. of Odisha
3. Dr. Debarata Panda, Assistant Professor & Head, Department of Botany, Central University Odisha
4. Shri Santosh Kumar Saha, District Coordinator, Agricultural Promotion and Investment Corporation of Odisha Limited (APICOL), Koraput, Odisha
5. Shri Santosh Kumar Das, Monitoring Expert of MAPs & Former member of the Advisory Committee, NMPB, MoAYUSH, GOI and Prof. of Practice, OUAT
6. Dr. Soumyajit Biswas, Project Manager, RCFC- ER, NMPB, JU
7. Shri Hari Pangi, Farmer, Traditional Healer, Medicinal Plants Entrepreneur & Researcher, Koraput, Odisha

Topics covered

1. Prof. (Dr.) Asis Mazumdar delivered a welcome address and outlined the role of the Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India, in strengthening the medicinal plants sector in Odisha. He elaborated on the various initiatives and support mechanisms aimed at promoting cultivation, capacity building, and market linkages for stakeholders in the state. He highlighted the need for a holistic approach that integrates scientific cultivation practices with efficient processing, value addition, and structured marketing systems.
2. Shri N. S. J. P. Singh delivered a presentation highlighting the rich plant diversity of Odisha, noting the presence of approximately 2,745 plant species, of which 1,769 are documented in Ayurvedic literature. During his address, he emphasized the importance of adopting sustainable harvesting practices for medicinal plants. He stressed that proper knowledge of the appropriate harvesting time is essential to ensure both quality and conservation. He further recommended that at least one-third of forest plant populations should be left undisturbed to facilitate natural regeneration in subsequent years. In the case of root harvesting, he advised that a portion of the root system should be retained in the soil to

support regrowth. Additionally, he pointed out that fruits, leaves, and aromatic forest products should be dried in shade to maintain their efficacy and quality. He also highlighted that processing of forest products plays a significant role in enhancing their market value and economic potential.

3. Shri Santosh Kumar Saha delivered a detailed presentation on financial support mechanisms for the cultivation and processing of medicinal plants, including oil extraction. He enlightened the farmers & collectors regarding the subsidies provided by the Agricultural Promotion and Investment Corporation of Odisha (APICOL) for activities such as cultivation, processing, and extraction of essential oils from plant parts like roots and leaves. He explained that the subsidy generally covers 40% of the fixed cost for general beneficiaries and up to 50% for agricultural graduates, as well as individuals belonging to SC, ST, and transgender categories. He further stated that landless farmers are also eligible, provided they submit a valid lease agreement. The components covered under the subsidy include infrastructure development such as buildings, electrification, water supply, and machinery. He also noted that applicants must be residents of Odisha to avail these benefits.
4. Dr. Debabrata Panda delivered a lecture on the significance of wild plants in tribal food systems and traditional medicine. He highlighted that indigenous systems of medicine such as Ayurveda, Siddha, and Unani form the foundation of many modern drugs, as they extensively utilize a wide range of plant species for treating various health ailments. He further pointed out that nearly 80 percent of the global population relies on herbal medicine for certain aspects of primary healthcare, reflecting its continued relevance and acceptance. In the Indian context, he noted that over 800 medicinal plant species are currently utilized by the herbal industry, demonstrating the vast resource base and growing demand. However, he also emphasized that only about 100 species are commercially cultivated in India, indicating a significant gap between utilization and organized cultivation, and highlighting the need for greater focus on sustainable use and cultivation of medicinal plants.

5. Shri S. K. Das delivered an insightful session on multi-tier cropping, value addition of medicinal plants including oil extraction from aromatic plants, and post-harvest management. He emphasized the importance of a progressive mindset with the remark that “mentality makes a man rich” highlighting the role of innovation and approach in achieving economic success. He explained the concept of multi-tier cropping as an intensive agricultural system in which multiple crops of varying heights and canopy structures are cultivated simultaneously on the same land, thereby reducing the risk of total crop failure caused by unpredictable weather, pests, or diseases. He delivered detailed cultivation technique and significance of value addition of some important medicinal and aromatic plants in respect to Koraput, Odisha such as Sarpagandha (*Rauvolfia serpentina*), Curry leaf (*Murraya koenigii)*, Nayantara (*Catharanthus roseus*), Bach (*Acorus calamus*), Nagarmotha (*Cyperus rotundus*), Betel leaf (*Piper betle*), Tuberose (*Polianthes tuberosa*)and Mentha (*Mentha arvensis*), which possess significantly higher market value compared to raw dried plant materials like roots

and leaves. He also shared his previous work experience in Koraput with respect to oil extraction from Damascus rose, which commands a premium price, underscoring the high economic potential of processed products.

6. Shri Hari Pangi focused on the importance of preserving traditional knowledge, protecting biodiversity, and addressing climate change through sustainable and innovative practices. He emphasized that timely collaboration with local communities, farmers, and traditional healers is crucial for understanding and conserving indigenous knowledge systems. He highlighted the medicinal significance of certain wild plants, noting that Samaboli (*Oxalis corniculata*) is known for strengthening the liver, supporting the nervous system, and preventing muscle degeneration. He also discussed the development of organic pesticides such as Agniastra (Neem leaves + Green Chilli + Garlic + Tobacco + Cow Urine) as a sustainable alternative of chemical fertilizers for cultivation practices. Additionally, he referred to a locally known plant called 'Tuba,' which is believed to help in reducing toxins affecting the eyes and nervous system, thereby underlining the value of traditional plant-based remedies.
7. Dr. Soumyajit Biswas delivered a comprehensive presentation on the range of medicinal plants cultivated in Odisha, highlighting their botanical significance as well as their market potential. He emphasized that adopting an integrated approach, combining cultivation, processing, value addition, and effective marketing, is crucial for enhancing income generation and ensuring sustainable livelihood opportunities for farmers and entrepreneurs in the medicinal plant sector. He also introduced the participants to e-Charak, an online marketplace for medicinal plants, and encouraged stakeholders to actively utilize the platform to strengthen market access and improve trade opportunities.
8. Discussions also highlighted the benefits of forming clusters among small landholding farmers, explaining that such collective approaches help in reducing cultivation, processing, and marketing costs. Clustering enables the sharing of resources and facilitates bulk purchasing of inputs such as raw materials, machinery, and fertilizers, thereby significantly lowering the overall cost of production and improving profitability.
9. At the end of the programme, participants visited the herbal garden of the M. S. Swaminathan Research Foundation for practical, hands-on experience with medicinal plants.

TRAINING 3 **Training on Nursery & Cultivation, PHM & Processing, Value Addition & Marketing of Medicinal Plants at Bokaro, Jharkhand**

Date, Venue & Participants		Resource Persons
Date	10th March 2026	1. Dr. Soumyajit Biswas, Project Manager, RCFC- ER, NMPB, JU 2. Shri Amarendra Jha, former Executive Engineer, Government of Jharkhand 3. Shri Anjani Kumar Singh, former General Manager, SAIL, Bokaro 4. Mr. Ashish Somani, Managing Director, Karbo Kisaan 5. Shri Ritlal Prasad Verma, Lecturer at Parasnath College, Giridih 6. Shri Khuleshwar Mahto, President of Paramparagat Vaidya Sangh, Bokaro
Place	Peterwar	
District	Bokaro	
State	Jharkhand	
Total no. of attendees	121	
Number of Farmers	79	
Number of Collectors	30	

Topics covered

1. Dr. Soumyajit Biswas provided a thorough overview of the National Medicinal Plants Board, Ministry of AYUSH, Govt. of India as well as Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER), its mandate, and its ongoing initiatives aimed at strengthening the medicinal plants sector across the region. He emphasized the importance of a coordinated and integrated approach involving multiple stakeholders, including government departments, research institutions, farmers, and industry players, to develop high-quality medicinal plant products that meet market standards. He elaborated on several key focus areas such as sustainable and scientific harvesting practices, promotion of digital platforms for online marketing and trade, and the establishment of school herbal gardens to promote awareness and education among younger generations. Additionally, he highlighted the critical roles of Farmer Producer Organizations (FPOs) and Forest Protection Committees in facilitating collective action, improving market access, and ensuring conservation of forest resources.
2. Shri Ashish Somani shared valuable industry-oriented insights on the importance of quality inputs and efficient farm management. He discussed the need for using certified seeds and planting materials, adopting scientific crop management practices, and ensuring proper post-harvest handling to maintain product quality. He also provided guidance on establishing strong market linkages and understanding market demand, while emphasizing the importance of selecting medicinal plant species that are well-suited to the local agro-climatic conditions in order to achieve higher productivity and profitability.

3. Shri Ritlal Prasad Verma conducted a highly informative technical demonstration on the establishment and scientific management of medicinal plant nurseries. His session offered practical insights into propagation methods, seed treatment, nursery bed preparation, irrigation management, and pest control measures. He also highlighted the importance of maintaining quality standards in nursery practices to ensure the availability of healthy and disease-free planting materials, which form the foundation of successful cultivation.

4. Shri Amarendra Jha, former Executive Engineer, Government of Jharkhand, presented a detailed report on the sustained efforts and progress made in Peterwar since 2002 in the field of medicinal plant cultivation and conservation. He reflected on the evolution of local initiatives, community participation, and the increasing awareness regarding the economic and ecological importance of medicinal plants. He further informed the participants that a digital copy of the book *"Medicinal Plants of Jharkhand,"* authored by Vaidya Shyam Bihari Tiwari, would be shared with them, thereby providing a valuable reference resource for future learning and application.

5. Shri Anjani Kumar Singh, former General Manager, SAIL Bokaro, delivered a comprehensive session on the cultivation of medicinal plants through organic and natural farming practices. He stressed the urgent need to shift from chemical-intensive agriculture to sustainable and eco-friendly methods that not only preserve soil health and biodiversity but also enhance the quality and efficacy of medicinal plant produce. He elaborated on techniques such as the use of organic manures, bio-fertilizers, and natural pest control methods, while also highlighting the growing market demand for organically produced medicinal raw materials.

6. Shri Khuleshwar Mahato, President of the Paramparagat Vaidya Sangh, Bokaro, initiated the technical proceedings by warmly welcoming all participants and setting the context of the programme. He provided an in-depth overview of the local agro-climatic conditions of the Peterwar region, emphasizing how these conditions support the growth of a wide variety of medicinal plants. He also elaborated on the rich traditional knowledge systems prevalent among local communities, highlighting how indigenous practices have long contributed to healthcare and livelihood generation through the use of medicinal plants.

7. The programme concluded with an engaging and interactive session led by local traditional healers, including Ramchandra Hansda, Nimai Chand Mahato, Vibhuti Mahato, Chandi Prasad, Manoj Kumar Mahato, and Debashish Kapoor. They demonstrated the identification, properties, and therapeutic uses of a wide range of locally available medicinal plants, thereby showcasing the richness of indigenous knowledge systems. Vaidya Nimai Chand Mahto also organized an exhibition featuring numerous medicinal plant species such as Narkachur (*Curcuma zedoaria*), Hemsagar (*Costus speciosus*), Varahi Kand (*Dioscorea bulbifera*), Shatavari (*Asparagus racemosus*), Sarpagandha (*Rauvolfia serpentina*), Gandhprasarini (*Paederia foetida*), Mithi Neem (*Murraya koenigii*), Daunatulsi (*Ocimum gratissimum*), Bach (*Acorus calamus*), Gorakhmundi (*Sphaeranthus*

indicus), Adusa (*Justicia adhatoda*), Gudmar (*Gymnema sylvestre*), Dhawai (*Woodfordia fruticosa*), Ramdatuwan (*Smilax zeylanica*), Malkangni (*Celastrus paniculatus*), Kala Adusa (*Justicia gendarussa*), Ishwarmool (*Aristolochia indica*), Brahmi (*Bacopa monnieri*), Mandukaparni (*Centella asiatica*), Makoy (*Solanum nigrum*), Bhumi Amla (*Phyllanthus niruri*), Giloy (*Tinospora cordifolia*), Chitrak (*Plumbago zeylanica*) and Punarnava (*Boerhavia diffusa*). This exhibition provided participants with a valuable opportunity to observe these plants firsthand and gain deeper insights into their practical applications, thereby effectively bridging traditional knowledge with modern scientific understanding.

TRAINING 4 **Training on Nursery & Cultivation, PHM & Processing, Value Addition & Marketing of Medicinal Plants at Khordha, Odisha**

Date, Venue & Participants		Resource Persons
Date	14th March 2026	1. Prof (Dr.) Guda Sridevi, Pro Vice –Chancellor, C. V. Raman Global University,Bhubaneshwar 2. Prof. (Dr.) Dilip Kumar Dash, Dean, Agriculture Dept., C. V. Raman Global University, Bhubaneshwar 3. Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU 4. Shri S.K. Das, Monitoring Expert of MAPs & Former member of the Advisory Committee, NMPB, MoAYUSH, GOI and Prof. of Practice, OUAT,Bhubaneshwar 5. Dr. S.C. Swain, Prof. & Head, Department of Fruit Science, OUAT,Bhubaneshwar 6. Shri N.S.J.P. Singh, OFS, Dy. Conservator of Forests (Retd.), Department of Forest, Environment and Climate Change, Govt. of Odisha 7. Dr. Soumyajit Biswas, Project Manager, RCFC- ER, NMPB, JU 8. Shri Sudipto Ghosh, Assistant Manager (Marketing), RCFC-ER, NMPB, JU
Place	Bhubaneswar	
District	Khordha	
State	Odisha	
Total no. of attendees	130	
Number of Farmers	90	
Number of Collectors	20	

Topics covered

1. Prof (Dr.) Guda Sridevi warmly welcomed farmers and stakeholders to the training programme, emphasizing its core purpose of providing valuable training. She expressed concern that traditional knowledge passed down through generations is gradually getting lost, noting how Western civilization is increasingly studying our traditions, such as the practice of fasting and the benefits of medicinal plants like turmeric. She concluded her address by wishing the program a meaningful and successful conclusion.
2. Prof. (Dr.) Dilip Kumar Dash emphasized the urgent need to explore the potential of medicinal and aromatic plants farming in Odisha. He advocated for the commercialization of these crops, stressing that it must be supported by standardized and proper cultivation techniques to ensure success and high yields.
3. Prof. (Dr.) Asis Mazumdar introduced the Schemes & mandates of National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India and outlined the primary scope of the training program. He placed a strong emphasis on the vast scope for entrepreneurship within the Medicinal and Aromatic Plants (MAP) sector, encouraging participants to view cultivation as a viable business opportunity.
4. Shri S.K. Das focused on enabling entrepreneurship within the MAP sector. He provided detailed knowledge about the potential of establishing extraction facilities for different

medicinal plants, specifically highlighting high-value crops like Bacha (*Acorus calamus*), Sarpagandha (*Rauvolfia serpentina*), Lemongrass (*Cymbopogon citratus*), Nagarmotha (*Cyperus rotundus*), Mentha (*Mentha arvensis*), Damsk Rose (*Rosa damascena*), Jasmine (*Jasminum spp.*).

5. Prof. (Dr.) S.C. Swain discussed several important medicinal plants in detail, providing critical insights into their expected yield, market price, and the overall cost structure of cultivation. The crops covered in his session included Brahmi (*Bacopa monnieri*), Satavari (*Asparagus racemosus*), Aloevera (*Aloe vera*), Gudmar (*Gymnema sylvestre*), Bacha (*Acorus calamus*), Bhringaraj (*Eclipta prostrata*), Moringa, (*Moringa oleifera*) Guduchi (*Tinospora cordifolia*), Sarpagandha (*Rauvolfia serpentina*), Ashwagandha (*Withania somnifera*), Pipli (*Piper longum*), Kalmegh (*Andrographis paniculata*) and Lemongrass (*Cymbopogon citratus*).
6. Shri N.S.J.P. Singh provided essential knowledge regarding relevant government rules and support schemes available to cultivators. Furthermore, he detailed the specific processing and value-addition techniques for a variety of forest and medicinal produce, including Amla (*Phyllanthus emblica*), Harra (*Terminalia chebula*), Behera (*Terminalia bellirica*), Satavari (*Asparagus racemosus*), Kalmegh (*Andrographis paniculata*), Mahua (*Madhuca longifolia*) and Guduchi (*Tinospora cordifolia*).
7. Shri Sudipto Ghosh presented the e-Charak application, a dedicated online marketplace designed to digitize the agricultural supply chain. He explained that this platform empowers local farmers and collectors by providing a digital storefront to publicly showcase their harvested produce.

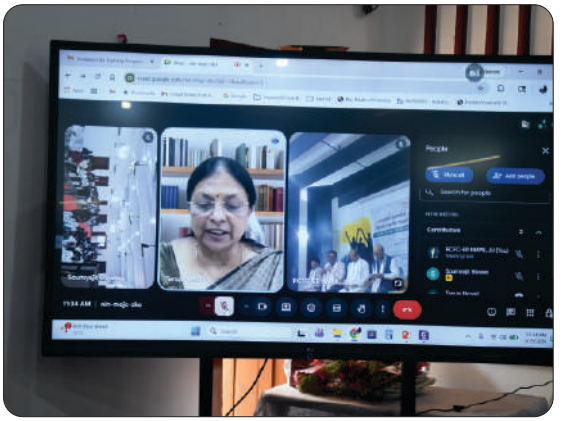
TRAINING 5 Training on Nursery & Cultivation, PHM & Processing, Value Addition & Marketing of Medicinal Plants at Shantiniketan, West Bengal

Date, Venue & Participants		Resource Persons
Date	19th March 2026	1. Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, Jadavpur University 2. Prof. (Dr.) Tanuja Nessari, Former CEO, NMPB, MoAYUSH, GoI & Director, Institute of Teaching and Research in Ayurveda, Jamnagar (Virtual Mode) 3. Prof. (Dr.) Swapan Dutta, Former Vice-Chancellor (Actg.), Visva-Bharati University, Santiniketan 4. Prof. (Dr.) Prabir Kr. Ghosh, Vice-Chancellor, Visva-Bharati University, Santiniketan 5. Prof. (Dr.) Amit Hazra, Director, Studies, Educational Innovations and Rural Reconstruction (SEI&RR), Visva-Bharati University, Santiniketan 6. Prof. (Dr.) Binoy Kumar Saren, Former Head of the Department & Professor of Agronomy, Visva-Bharati University, Santiniketan 7. Prof. (Dr.) Samiran Mondal, Department of Physical Education and Sport Science, Visva-Bharati University, Santiniketan 8. Dr. Soumyajit Biswas, Project Manager, RCFC- ER, NMPB, JU 9. Mr. Shantanu Chakraborty, Project Consultant (Technical), RCFC-ER, NMPB, JU
Place	Shantiniketan	
District	Birbhum	
State	West Bengal	
Total no. of attendees	211	
Number of Farmers	200	
Number of Collectors	0	

Topics covered

1. Prof. (Dr.) Asis Mazumdar delivered the inaugural speech, warmly welcoming the participating farmers and stakeholders to the training programme. He emphasized the core purpose of the event, which was to provide valuable and actionable training to the attendees. Furthermore, he briefed the audience about the pivotal roles and importance of RCFC-ER, NMPB, detailing the strategic activities these organizations undertake to support the sector.
2. Prof. (Dr.) Tanuja Nessari highlighted how natural medicine and Ayurvedic concepts are deeply ingrained within all of our cultural traditions. She emphasized that Visva-Bharati University can play a crucial role in facilitating local capacity building for the farming community and aspiring entrepreneurs interested in working with Medicinal and Aromatic Plants (MAP) in collaboration with the NMPB and RCFC-ER. For the strategic development of this sector in West Bengal, she recommended shortlisting 10 highly potential plant species to focus dedicated efforts on their cultivation and integrated value addition.

3. Prof. (Dr.) Swapan Dutta reflected on Visva-Bharati's strong tradition of providing organic farming-related training through the Krishi Vigyan Kendra (KVK) in Sriniketan. He spoke at length about the importance of specific medicinal plants like Cannabis (*Cannabis sativa*), Sarpagandha (*Rauvolfia serpentina*) , and Nayantara (*Catharanthus roseus*), stressing the need for active principles evaluation and climate-specific cultivation techniques. Highlighting the increasing global market demand for medicinal plants, he provided practical examples, such as how the Artemisia plant (*Artemisia vulgaris*) effectively repels mosquitoes. Additionally, he noted that Ashwagandha (*Withania somnifera*), often referred to as Indian ginseng, is rapidly gaining popularity and holds tremendous global market potential.



4. Prof. (Dr.) Prabir Kr. Ghosh addressed the existing knowledge base among farmers and villagers regarding the immense importance of medicinal plants. He strongly advocated for inter-cropping as a highly suitable method for disease and pest control, which simultaneously boosts profitability and crop diversification. He suggested initiating large-scale cultivation, establishing medicinal plant gardens, and developing nurseries by utilizing the large tracts of available land, particularly the barren lands currently under the Yogic Art Science Department. Prof. Ghosh emphasized leveraging the combined strengths of horticulture, agronomy, KVK, and economics at Visva-Bharati. He highlighted the critical importance of setting up processing units alongside comprehensive awareness programs on value addition in the 65 tribal villages adopted by Visva-Bharati, particularly stressing the use of the *Santhali* language for effective communication. He concluded by calling for a holistic approach involving various university departments working directly with the farmers in adopted villages.
5. Prof. Binoy Kumar Saren, Former Head of the Department & Professor of Agronomy, Visva-Bharati University, Santiniketan, concluded the sessions by extending a heartfelt vote of thanks to all the participating stakeholders for their valuable presence and contributions.
6. Prof. Samiran Mondal outlined the primary objective of the programme, discussing the overall importance of medicinal plants and the necessity of developing an integrated medicinal plants sector. He elaborated on how AYUSH and medicinal plant initiatives have been strongly emphasized to aid in the holistic development of both Visva-Bharati and its adopted surrounding villages.
7. During the technical session, Dr. Soumyajit Biswas introduced the participants to several high-demand medicinal plants such as Amlaki (*Phyllanthus emblica*), Haritaki (*Terminalia chebula*), Bahera (*Terminalia bellirica*), Bael (*Aegle marmelos*), Punarnava (*Boerhavia diffusa*), Ashok (*Saraca asoca*), Neem (*Azadirachta indica)*, Leda (*Litsea glutinosa*),

Nishinda (*Vitex negundo*), Mehendi (*Lawsonia inermis*), Salpani (*Desmodium gangeticum*), Arjun (*Terminalia arjuna*), Gulancha (*Tinospora cordifolia*), Basak (*Justicia adhatoda*), Bhui amla (*Phyllanthus amarus*), Chitrak (*Plumbago zeylanica*) and Keshute (*Eclipta prostrata*) among others, available in the lateritic zone. He also delivered a detailed presentation on nursery and cultivation techniques of commercially important medicinal plants such as Ekangi (*Kaempferia galanga*), Ashwagandha (*Withania somnifera*), Brahmi (*Bacopa monnieri*), Kalmegh (*Andrographis paniculata*), Satamul (*Asparagus racemosus*), Thankuni (*Centella asiatica*), Tulsi (*Ocimum tenuiflorum*), Ghrita kumari (*Aloe vera*), Sarpagandha (*Rauvolfia serpentina*), Nayantara (*Catharanthus roseus*) which are well-suited for cultivation in West Bengal. He further highlighted the schemes of the National Medicinal Plants Board (NMPB), along with Good Agricultural and Field Collection Practices for sustainable cultivation and harvesting.

8. Mr. Santanu Chakraborty provided valuable insights into primary processing methods, value addition techniques and the significant economic potential of high-demand medicinal plants. His session highlighted practical approaches for enhancing entrepreneurial skills and emphasized the importance of strategic planning and effective online marketing to improve profitability.

TRAINING 6 **Training Programme cum Farmers Meet on Cultivation and Collection of Medicinal Plants in Dumka, Jharkhand**

Date, Venue & Participants		Resource Persons
Date	30th June 2025	1. Shri Ashish Somani, Managing Director, Karbo Kisaan, Bihar 2. Mr. Kumar Ranjan, Member, Chetna Vikas Sanstha 3. Mr. Mr. Saurav Keshri, Owner, Vitasta Agro Botanicals 4. Shri Subodh Kumar, Project Assistant, RCFC-ER, NMPB, JU
Place	Tulitand, Saraihat	
District	Dumka	
State	Jharkhand	
Total no. of attendees	32	
Number of Farmers	28	
Number of Collectors	0	

Topics covered

1. Mr. Kumar Ranjan encouraged the farmers to diversify their agricultural practices by adopting the cultivation of medicinal plants as a sustainable means of enhancing their income. He emphasized the growing demand for medicinal plant-based raw materials in the herbal and AYUSH industries, highlighting the potential for better returns compared to conventional crops.
2. Mr. Ashish Somani elaborated on the importance of market-oriented cultivation, guiding farmers to select species based on current demand, assured buy-back opportunities, and value chain linkages. He also discussed best practices in cultivation, aggregation, and maintaining quality standards to meet market requirements.
3. Mr. Saurabh Keshari shared practical insights into the commercial cultivation of Kaunch (*Mucuna pruriens*) and Kalmegh (*Andrographis paniculata*). He provided detailed information on their agronomic practices, harvesting techniques, and post-harvest handling, along with market demand and pricing trends, thereby helping farmers understand their economic viability.
4. Mr. Subodh Kumar further advised the farmers to focus on the cultivation of Nirgundi (*Vitex negundo*), Kalmegh (*Andrographis paniculata*), Tulsi (*Ocimum tenuiflorum*) and Kaunch (*Mucuna pruriens*) , taking into account the local agro-climatic conditions of the region. He highlighted that selecting suitable species based on climate adaptability not only ensures better yield but also reduces risk, thereby promoting sustainable and profitable cultivation practices.

TRAINING 7 Training Programme cum Farmers Meet on Cultivation and Collection of Medicinal Plants in Rajgir, Bihar

Date, Venue & Participants		Resource Persons
Date	31st August 2025	1. Shri Rahul Kumar, Secretary of the Magadh Biodiversity Conservation Committee 2. Shri Ashish Somani, Managing Director, Karbo Kisaan 3. Shri Subodh Kumar, Project Assistant, RCFC-ER, NMPB, JU 4. Shri Shivnath Kumar, Member, Magadh Biodiversity Conservation Committee 5. Shri Divakar Kumar, Member, Magadh Biodiversity Conservation Committee 6. Shri Sajeevan Majhi, Traditional Healer 7. Shri Tanda Kumar, Traditional Healer
Place	Udaygir	
District	Rajgir	
State	Bihar	
Total no.of attendees	20	
Number of Farmers	13	
Number of Collectors	0	

Topics covered

1. The Training Programme cum Farmers Meet brought together members of the Magadh Nature Conservation Society along with local stakeholders to deliberate on the cultivation of medicinal plants, emphasizing scientific methods of cultivation, quality collection practices, and their wide-ranging therapeutic applications in traditional and modern healthcare systems.
2. Shri Rahul Kumar delivered an informative presentation on the rich diversity of medicinal plants found in the Panchang Hills of Rajgir. He highlighted the ecological significance of the region and stressed the need for documentation and sustainable utilization of these valuable plant resources.
3. Shri Shivnath Kumar and Shri Divakar Kumar provided practical insights into the cultivation, conservation, and propagation of locally available medicinal plant species. They emphasized community participation and the integration of traditional knowledge with scientific approaches to ensure long-term sustainability and livelihood enhancement.
4. Shri Ashish Somani addressed the post-harvest and market aspects of medicinal plant cultivation. He provided detailed information on primary processing, quality storage techniques, and the importance of standardization. He also explained market dynamics, including price trends and fair trade practices, enabling farmers to make informed decisions regarding buying and selling.
5. Shri Subodh Kumar elaborated on scientific harvesting techniques, focusing on sustainable and non-destructive methods of collection. He also discussed primary processing practices such as cleaning, drying, grading, and storage, which are crucial for maintaining

the quality, efficacy, and market value of medicinal plant produce.

6. Additionally, Shri Sajeevan Majhi and Shri Tanda Kumar, both traditional healers, shared their experiential knowledge of medicinal plants used in traditional healing practices. They discussed the identification, preparation, and application of various plants, thereby highlighting the importance of preserving indigenous knowledge systems.

7. A field visit was conducted as part of the programme, offering participants hands-on exposure to the natural habitat of medicinal plants. During this visit, a total of 35 species were identified. Among these, the rare Ashtavarga plant Riddhi (*Habenaria intermedia*) was recorded, along with other important species such as Gudmar (*Gymnema sylvestre*), Nagbala (*Grewia hirsuta / Sida veronicaefolia*), Kali Sariva (*Ichnocarpus frutescens*), Indrayav (*Holarrhena pubescens*), Salai (*Boswellia serrata*), Kalmegh (*Andrographis paniculata*), Dhataki (*Woodfordia fruticosa*), Aparas or Joka (*Achyranthes aspera*), Sanjivani Booti (*Selaginella bryopteris*), Kalihari (*Gloriosa superba*), Anantmool (*Hemidesmus indicus*), Dharakan (*Clerodendrum serratum*), Baibidang (*Embelia ribes*), Shalparni (*Desmodium gangeticum*), Madorphali (*Helicteres isora*), Sarphonka (*Tephrosia purpurea*), Kali Musli (*Curculigo orchioides*), Bahuphali (*Trichosanthes cucumerina*), Bhulanvel (*Cocculus hirsutus*), Prishnaparni (*Uraria picta*), Tambajad (*Ventilago denticulata*), Vyaghranakhi (*Martynia annua*), Chhoti Bala (*Sida cordifolia*), and Moosakparni (*Teramnus labialis*). reflecting the rich biodiversity of the region.

TRAINING 8 **Training Programme cum Farmers Meet on Cultivation and Collection of Medicinal Plants in Giridih, Jharkhand**

Date, Venue & Participants		Resource Persons
Date	1st March 2026	1. Shri Ritlal Prasad Verma, Lecturer at Parasnath College, Giridih 2. Shri Mohan Soren, Block Programme Officer (MGNREGA), Suriya Block, Giridih, Jharkhand 3. Shri Kartik Marandi, representative of the Panchayat Samiti, Suriya Block, Giridih, Jharkhand 4. Smt. Budhni Devi, Village Chief, Karipahari Village, Koyridih Panchayat, Suriya Block, Giridih, Jharkhand 5. Shri Subodh Kumar, Project Assistant, RCFC-ER, NMPB, JU 6. Shri Uma Pandit, Progressive Farmers 7. Shri Yogendra Pandit, Progressive Farmers
Place	Suriya	
District	Giridih	
State	Jharkhand	
Total no. of attendees	73	
Number of Farmers	68	
Number of Collectors	0	

Topics covered

1. The farmers meet primarily focused on strengthening grassroots capacity in the nursery development, scientific cultivation, harvesting management, primary processing, and value addition of medicinal plants, with an emphasis on enhancing both sustainability and livelihood opportunities for local farmers.
2. Shri Ritalal Prasad Verma, Secretary of the Gau Seva Ashram-cum-Panchagavya Research Centre, Kanchanpur (Koyridih), elaborated on the increasing importance and demand for medicinal plants in the present healthcare and wellness sector. He highlighted their role in traditional systems of medicine and emphasized the need for organized cultivation to meet rising market requirements.
3. Shri Kartik Marandi, representative of the Panchayat Samiti, provided valuable information on medicinal plant species locally available in the region. He encouraged farmers to utilize indigenous knowledge and locally adaptable species for cultivation, which are often more resilient and economically viable.
4. Shri Mohan Soren, Block Programme Officer (MGNREGA), Suriya Block, advised integrating medicinal plant cultivation into the MGNREGA framework. He highlighted the potential of the scheme to support plantation activities, generate employment, and promote sustainable resource management at the community level.

5. Shri Subodh Kumar Project Assistant, RCFC-ER, NMPB, JU delivered a comprehensive session on climate-resilient cultivation practices. He provided detailed technical guidance on species selection based on agro-climatic conditions, sustainable harvesting methods, and scientific management practices to ensure both productivity and conservation of medicinal plant resources.
6. Shri Uma Pandit and Shri Yogendra Pandit, both progressive medicinal plant cultivators, highlighted the economic and practical aspects of medicinal plant farming. They emphasized value addition, proper post-harvest handling, processing, and packaging, along with the importance of reliable market linkages to enhance farmers' income. They also discussed the diverse uses of medicinal plants and promoted natural, organic, and eco-friendly cultivation practices to ensure sustainability and better quality produce.

WORKSHOP

Workshop on Entrepreneurship Opportunities on Medicinal & Aromatic Plants

Objective: The primary aim of the programme was to create awareness among students about the vast potential of entrepreneurship in the Medicinal and Aromatic Plants (MAP) sector and to encourage them to explore self-employment and startup opportunities in areas such as cultivation, processing, and marketing of MAPs. It sought to provide foundational knowledge on value chains, business models, and market demand related to medicinal and aromatic plants, while motivating participants to utilize locally available resources and their technical skills for developing sustainable entrepreneurial ventures. In addition, it aimed to promote innovation and skill development in areas such as nursery management, value addition, and product development, while sensitizing participants to the economic, ecological, and social benefits of medicinal plant based enterprises, and building their confidence to consider entrepreneurship as a viable career option alongside traditional employment paths.

Venue : The Calcutta Technical School (TCTS), Govt. of West Bengal, Kolkata, West Bengal
Date : 7th February, 2026

Number & Composition of Participants: Total 121 nos. of participated in the programme including students and faculty members of The Calcutta Technical School (TCTS), Government of West Bengal, Kolkata, along with distinguished entrepreneurs from the medicinal plants sector.

Description: The Workshop on Entrepreneurship Opportunities in Medicinal & Aromatic Plants was successfully organized at The Calcutta Technical School (TCTS), Government of West Bengal, Kolkata, with enthusiastic participation primarily from students, along with faculty members. The programme commenced with a welcome address delivered by Shri Achintya Kumar Chattopadhyay, Principal-in-Charge, TCTS.
This was followed by the address from Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, Jadavpur University, who presented an overview of the initiatives and activities undertaken by RCFC-ER and encouraged the students to actively engage in this promising sector.
Dr. Soumyajit Biswas, Project Manager, RCFC-ER, NMPB, Jadavpur University, delivered an informative session on a wide range of medicinal and aromatic plants. he provided practical insights into their cultivation practices, including suitable growing conditions, propagation methods, and basic management techniques, thereby helping participants gain a comprehensive understanding of the potential of these plants.
The technical session was delivered by Mr. Santanu Chakraborty, Consultant (Technical), RCFC-ER, NMPB, Jadavpur University, who provided valuable insights into primary processing methods, value addition techniques, and the significant economic potential of high demand medicinal plants. His session highlighted practical approaches for enhancing entrepreneurial skills and emphasized the importance of strategic planning and effective online marketing to improve

profitability. The session served as a strong motivational platform for students to consider innovative business opportunities in this field.

The programme was further enriched by the presence of Mr. Abhay Somani, Director, Janus Life Sciences, Kolkata, who shared his entrepreneurial journey and practical experiences in the industry. He elaborated on the use of stevia as a natural sweetener and discussed the growing relevance and benefits of medicinal plants in the present-day market. His insights encouraged participants to actively engage in this sector and explore its vast potential.

Adding a practical and inspiring perspective, Ms. Anwesha Sinha from Misstevia shared her real-life entrepreneurial journey, describing how she started her business on a small scale. She spoke about developing healthy and tasty sweets made from stevia, demonstrating how innovation and determination can lead to successful ventures. Her experience particularly motivated aspiring entrepreneurs, especially women, to pursue opportunities in the MAP sector.

Overall, the workshop served as an informative and inspiring platform, equipping students with knowledge, practical insights, and motivation to venture into entrepreneurship in the medicinal and aromatic plants sector.

Outcomes/Recommendations: The major focus of the programme and deliberations by the resource persons included: The workshop resulted in enhanced awareness and interest among students regarding entrepreneurship opportunities in the Medicinal and Aromatic Plants (MAP) sector. Participants gained practical knowledge on cultivation practices, primary processing, value addition, and marketing strategies, which strengthened their understanding of the complete value chain. The interactive sessions and real-life experiences shared by successful entrepreneurs inspired students to consider self-employment and startup ventures in this field. The programme also helped in building confidence among participants, encouraging them to explore innovative ideas, utilize locally available resources, and take advantage of government schemes and institutional support. Overall, the workshop successfully motivated students to view entrepreneurship in the MAP sector as a viable and sustainable career option.

SECTION

03

DEVELOPMENT OF QPM

Development of Quality Planting Material (QPM)

Development and Achievement under QPM:
RCFC-ER has developed **6,40,960** of QPM through **14** different organizations in the states of West Bengal, Odisha, Bihar, Jharkhand and Sikkim. **23** different medicinal plants species over a total area of **99.254 hectares** and are distributed among **92** farmers. The details are given in table below:

State	Organizations	Species	Scientific Name	Quantity	Cultivated Area (ha)
West Bengal	Saguna Medicinal Plants, Farmers Cluster	Aloevera	*Aloe vera*	13000	0.351
		Pipli	*Piper longum*	4000	0.144
		Rakta Chandan	*Pterocarpus santalinus*	1200	1.920
		Patol Panchang	*Trichosanthes cucumerina*	31500	0.073
	Madhyamgram Kalpataru Welfare Society	Ashwagandha	*Withania somnifera*	6800	0.245
		Ekangi	*Kaempferia galanga*	40250	0.403
	NEPO FPO	Ashwagandha	*Withania somnifera*	8500	0.306
		Aloevera	*Aloe vera*	14300	0.386
		Satamuli	*Asparagus racemosus*	6900	0.047
		Ekangi	*Kaempferia galanga*	11400	0.114
	North Bengal Development Organization	Ekangi	*Kaempferia galanga*	39400	0.394
		Satamuli	*Asparagus racemosus*	7200	0.049
	Avi's Enterprises	Rakta Chandan	*Pterocarpus santalinus*	3010	4.816
		Bahera	*Terminalia bellirica*	3000	10.800
		Amla	*Phyllanthus emblica*	3000	10.800
		Haritaki	*Terminalia chebula*	3000	10.800
		Bael	*Aegle marmelos*	2000	5.000
Odisha	Sosunum Agro Farmers Producer Company Limited	Tejpatta	*Cinnamomum tamala*	3000	2.700
		Vetiver	*Chrysopogon zizanioides*	91000	1.229
	Sabuja Biplav	Tejpatta	*Cinnamomum tamala*	3000	2.700
		Tulsi	*Ocimum tenuiflorum*	55000	1.114
	Gandhamardan Vanaspati Vana Society	Sarpagandha	*Rauvolfia serpentina*	8000	0.108
		Tikhur	*Curcuma angustifolia*	8000	0.096
		Ashwagandha	*Withania somnifera*	13000	0.468
		Amla	*Phyllanthus emblica*	4000	14.400
Bihar	Medicinal and Aromatic Plant Growers Association of Bihar	Aloevera	*Aloe vera*	19000	0.513
		Satavar	*Asparagus racemosus*	20000	0.135
	Narayani Kela avam Jaivik Fal Udpadak Samuh	Kalmegh	*Andrographis paniculata*	35000	0.210
		Tulsi	*Ocimum tenuiflorum*	30000	0.608
	Organic Mission	Ashwagandha	*Withania somnifera*	21000	0.756
		Tulsi	*Ocimum tenuiflorum*	30000	0.608

Jharkhand	Jharkhand Charitable Educational and Rural Development Trust	Kalmegh	*Andrographis paniculata*	15000	0.090
		Satavar	*Asparagus racemosus*	21000	0.142
		Tulsi	*Ocimum tenuiflorum*	15000	0.304
	Amritavni Holistic and Regenerative Agriculture Association	Tejpatta	*Cinnamomum tamala*	5000	4.500
		Neem	*Azadirachta indica*	5000	4.500
		Bael	*Aegle marmelos*	5000	12.500
		Dalchini	*Cinamomum verum*	5000	4.500
		Tulsi	*Ocimum tenuiflorum*	16000	0.324
Sikkim	Sewa Lung Nursery	Panax	*Panax pseudoginseng*	1000	0.002
		Jatamansi	*Nardostachys jatamansi*	3000	0.018
		Satuwa	*Paris polyphylla*	5000	0.012
		Tagara	*Valeriana wallichii*	6500	0.073
			Grand Total	**640960**	**99.254**

Details of QPM Developed and Distributed in West Bengal

a. **Saguna Medicinal Plants Farmers Cluster** raised **49700 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter Id. No	GPS Location	Species Name	NO. of QPM
1	Mahadeb Chandra Paul Krishnapur, Saguna, Kalyani, Nadia	Aadhaar No.- 996065558699	[22.983277] [88.504512] [22.983447] [88.50435] [22.98347] [88.504249] [22.98321] [88.504164]	Aloevera	5000
				Piplli	500
				Rakta Chandan	100
2	Sampa Halder Dogachia, 24pgs(N)	Aadhaar No.- 912942107610	[22.983484] [88.507286] [22.983728] [88.507216] [22.983826] [88.507522] [22.983604] [88.507685]	Aloevera	3000
				Piplli	500
				Rakta Chandan	100
3	Maniklal Biswas Krishnapur, Saguna Kalyani, Nadia	Aadhaar No.- 272491224965	[22.979983] [88.498906] [22.979812] [88.498914] [22.979808] [88.499065] [22.980026] [88.499077]	Aloevera	1000
				Rakta Chandan	200
				Patol Panchang	3000
4	Asit Biswas Krishnapur, Saguna, Kalyani, Nadia	Aadhaar No.- 776652343619	[22.980005] [88.499091] [22.980016] [88.499234] [22.980265] [88.499139] [22.980197] [88.498896]	Aloevera	1000
				Rakta Chandan	200
				Patol Panchang	4000
5	Bikash Roy 2no lichutala, Saguna, kalyani, Nadia	Aadhaar No.- 972812634098	[22.980989] [88.502502] [22.980477] [88.502678] [22.980535] [88.502786] [22.98052] [88.502751]	Piplli	500
				Rakta Chandan	100
				Patol Panchang	3500
6	Shantanu Chatterjee Dogachiya, Gayespur Nadia	Aadhaar No.- 981073824059	[22.966078] [88.50644] [22.966104] [88.506606] [22.966336] [88.506647] [22.966391] [88.506498]	Piplli	500
				Rakta Chandan	100
				Patol Panchang	3000
7	Sanjit kumar Paul Bamunpara, Saguna, Madanpur, Nadia	Aadhaar No.- 357852072001	[22.994543] [88.485474] [22.99419] [88.485428] [22.994165] [88.485528] [22.994536] [88.485501]	Piplli	500
				Rakta Chandan	100
				Patol Panchang	3000
8	Swapan Pal Bamun para, Saguna, Madanpur, Nadia	Aadhaar No.- 952920875713	[22.993253] [88.48876] [22.993254] [88.488794] [22.993583] [88.488764] [22.993622] [88.488628]	Piplli	500
				Rakta Chandan	100
				Patol panchang	5000
9	Arun Chandra Ghosh Gayeshpur, Nadia	Aadhaar No.- 754187505025	[22.972749] [88.505207] [22.97271] [88.504984] [22.972892] [88.504988] [22.972929] [88.505223]	Aloevera	2000
				Piplli	500
				Patol Panchang	3500
10	Mufa Mondal Madandanga,Dogachiya, kalyani, Nadia,	Aadhaar No.- 820839272559	[22.972777] [88.505823] [22.972685] [88.505386] [22.972569] [88.505368] [22.972646] [88.505818]	Piplli	500
				Rakta Chandan	100
				Patol Panchang	3500
11	Jiarul Mridha Madandanga, Ghoragacha, Kalyani, Nadia	Aadhaar No.- 409002227021	[22.972289] [88.507505] [22.972095] [88.506942] [22.972352] [88.506942] [22.972343] [88.507256]	Aloevera	1000
				Rakta Chandan	100
				Patol Panchang	3000
				Total No. of QPM distributed	**49700**

b. Madhyamgram Kalpataru Welfare Society raised **47050 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter Id. No	GPS Location	Species Name	NO. of QPM
1	Jayanta Ghosh Nasherkuli, Nadia	Aadhaar No.- 935671951440	[23.1456] [88.6084]	Ekangi	6000
2	Bankim Biswas Nasherkuli, Nadia	Aadhaar No.- 576375958763	[23.1446] [88.6070]	Ekangi	26250
3	Binay Sarkar Nasherkuli, Nadia	Aadhaar No.- 527727975483	[23.1441] [88.6073]	Ekangi	5000
4	Kaberi Sarkar Nasherkuli, Nadia	Aadhaar No.- 824897595590	[23.1216] [88.6051]	Ekangi	3000
5	Abul Kalam Azad Golabari, North 24 Paraganas	Aadhaar No.- 903828488665	[22.68300] [88.58670]	Ashwagandha	6800
				Total No. of QPM distributed	**47050**

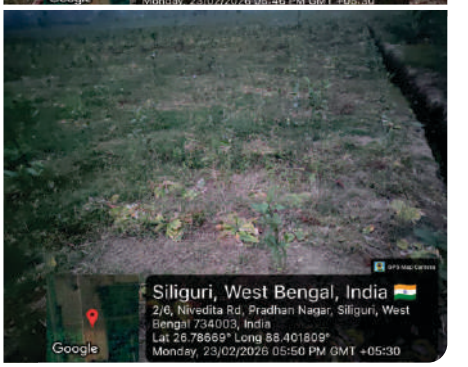
c. NEPO FPO raised **41100 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter Id. No	GPS Location	Species Name	NO. of QPM
1	Akkash Mandal Huda, Digambarpur, Nadia	Aadhaar No.- 655906093183	[23.422864] [88.754203] [23.423589] [88.755089] [23.423147] [88.755630] [23.423057] [88.755950]	Satamuli	3000
2	Chandra Patra Huda, Digambarpur, Nadia	Aadhaar No.- 538312814012	[23.422692] [88.754520] [23.423589] [88.754123] [23.422897] [88.754156] [23.423569] [88.755025]	Satamuli	3900
3	Jatirbaksa Mondal Huda, Digambarpur, Nadia	Aadhaar No.- 672405913834	[23.42262] [88.754688] [23.42255] [88.754681] [23.42253] [88.754692] [23.42265] [88.754689]	Ashwagandha	4100
4	Somnath Ghosh Huda, Digambarpur, Nadia	Aadhaar No.- 898647255667	[23.42260] [88.754825] [23.42256] [88.754547] [23.42287] [88.754756] [23.42247] [88.754526]	Ashwagandha	4400
5	Subhankar Biswas Huda, Digambarpur, Nadia	Aadhaar No.- 974728488513	[23.422659] [88.754426] [23.423581] [88.754126] [23.422659] [88.754561] [23.4723561] [88.755403]	Ekangi	4000
6	Aparna Roy Huda, Digambarpur, Nadia	Aadhaar No.- 970463782672	[23.422258] [88.754741] [23.422269] [88.755258] [23.423879] [88.755123] [23.423258] [88.755123]	Ekangi	3400
7	Chanchal Biswas	Aadhaar No.- 750552389025	[23.422690] [88.422758] [23.422511] [88.422914]	Alovera	3250

	Huda, Digambarpur, Nadia		[23.422410] [88.422012] [23.422456] [88.422699]		
8	Rahul Mondal Huda, Digambarpur, Nadia	Aadhaar No.- 582086172772	[23.422356] [88.754785] [23.422289] [88.754699] [23.422206] [88.754603] [23.422598] [88.754528]	Alovera	3400
9	Hapijul Mandal Huda, Digambarpur, Nadia	Aadhaar No.- 692533026414	[23.422865] [88.754687] [23.423158] [88.755412] [23.423189] [88.755315] [23.423879] [88.755011]	Ekangi	4000
10	Nilam Mondal Huda, Digambarpur, Nadia	Aadhaar No.- 436062862633	[23.422369] [88.754478] [23.423091] [88.754011] [23.423211] [883754056] [23.423289] [88.754010]	Aloevera	4300
11	Arpita Biswas Huda, Digambarpur, Nadia	Aadhaar No.- 816633333159	[23.422698] [83.754754] [23.422423] [88.754801] [23.422381] [88.754826] [23.422659] [88.754899]	Alovera	3350
				Total No. of QPM distributed	**41100**

d. North Bengal Development Organization raised **46600 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter ID No.	GPS Location	Species Name	No. of QPM
1	Archana Roy Pradhan Nagar, Baghajatin Colony, Siliguri, Darjeeling	Aadhaar No.- 852960556759	[26.786638] [88.40146] [26.786699] [88.40189] [26.786542] [88.40214] [26.786435] [88.40199]	Ekangi	10500
2	Biplab Roy Baghajatin Colony Pradhan Nagar, Siliguri, Darjeeling	Aadhaar No.- 440351651953	[26.786641] [88.401495] [26.786412] [88.402569] [26.78599] [88.401258] [26.78602] [88.401258]	Ekangi	11400
3	Ghuran Gowala Bich Lane, Rajabhatkhawa, Buxa Forest, Jalpaiguri	Aadhaar No.- 411141405789	[26.786761] [88.401478] [26.786542] [88.401587] [26.785501] [88.402001] [26.78545] [88.402501]	Ekangi	7100
4	Rathindra Paul Swamiji Sarani, Hakimpara, Jalpaiguri	Aadhaar No.- 240030208341	[26.786818] [88.401473] [26.786714] [88.402003] [26.786520] [88.401965] [26.786254] [88.401888]	Ekangi	10400
5	Sanjit Gowala Bich Lane, Rajabhatkhawa, Buxa Forest, Jalpaiguri	Aadhaar No.- 827833831877	[26.786838] [88.401506] [26.786125] [88.402415] [26.786458] [88.402369] [26.786287] [88.402231]	Satamuli	7200
				Total No. of QPM distributed	**46600**



e. Avi's Enterprises raised 14010 nos. of QPM (3010 nos. of Rakta Chandan, 3000 nos. of Bahera, 3000 nos. of Amla, 3000 nos. of Haritaki, 2000 nos. of Bael) and maintained at the Modern Medicinal Plants Nursery, at Jadavpur University, Main Campus, Kolkata for distributing among the Stakeholders during different awareness programme and special campaign like International Yoga day, World Environment Day, Ayurveda Day, and other Workhops/Seminars.



Details of QPM Developed and Distributed in Odisha

a. **Sosunum Agro Farmers Producer Company Limited** raised **94,000 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter ID No.	GPS Location	Species Name	No. of QPM
1	Pramila Das, Guhaldiha, Sulipada, Mayurbhanj	Aadhaar No.- 956073379210	[21.998789] [86.995215] [21.998748] [86.995233] [21.998695] [86.994707] [21.998712] [86.994707]	Tejpatta	750
				Vetiver	22750
2	Reemadevi Das, Guhaldiha, Sulipada, Mayurbhanj	Aadhaar No.- 864084425686	[21.998709] [86.995434] [21.998773] [86.995183] [22.000112] [86.994783] [22.000378] [86.99548]	Tejpatta	750
				Vetiver	22750
3	Girish Chandra Das, Guhaldiha, Sulipada, Mayurbhanj	Aadhaar No.- 916111852753	[21.998828] [86.994362] [21.997821] [86.994116] [21.997475] [86.994973] [21.997534] [86.994978]	Tejpatta	750
				Vetiver	22750
4	Khageswar Das, Guhaldiha, Sulipada, Mayurbhanj	Aadhaar No.- 794303600719	[21.999195] [86.995965] [21.997357] [86.996] [21.998184] [86.995956] [21.998791] [86.995705]	Tejpatta	750
				Vetiver	22750
Total No. of QPM distributed					**94000**

b. **Sabuja Biplav r**aised **58,000 nos.** of QPM of various species distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter ID No.	GPS Location	Species Name	No. of QPM
1	Bijay Kumar Jena, Khuruntia, Mayurbhanj	Aadhaar No.- 896172134057	[21.846098] [87.036243] [21.846013] [87.036364] [21.846161] [87.036627] [21.846273] [87.036319]	Tejpatta	1000
				Tulsi	19360
2	Harendra Sing, Khuruntia, Mayurbhanj	Aadhaar No.- 336472306284	[21.846666] [87.035664] [21.846498] [87.035592] [21.846437] [87.035959] [21.846637] [87.035955]	Tejpatta	800
				Tulsi	15000
3	Rabindranath Sing, Khuruntia, Mayurbhanj	Aadhaar No.- 697072156562	[21.846214] [87.035622] [21.846459] [87.035679] [21.846425] [87.035932] [21.846096] [87.035768]	Tejpatta	1200
				Tulsi	20640
				Total No. of QPM distributed	**58000**

c. **Gandhamardan Vanaspati Vana Society** raised **33,000 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter ID No.	GPS Location	Species Name	No. of QPM
1	Shankar Barik Lergaon, Paikmal, Bargarh	Aadhaar No.- 590355534171	[20.951352] [82.898331] [20.951047] [82.898119] [20.949991] [82.898180]	Tikhur	2500
				Amla	200
				Sarpagandha	2000
2	Girdhari Sahu Chergajhang, Jamsetu, Bargarh	Aadhaar No.- 659360693099	[20.852332] [82.758415] [20.852593] [82.757537] [20.852879] [82.759189]	Aswagandha	2500
				Amla	1100
				Sarpagandha	2000
3	Dolamani Meher Koknara, Paikmal, Bargarh	Aadhaar No.- 581915589281	[20.930590] [82.799159] [20.931100] [82.799210]	Amla	300
				Sarpagandha	1000
4	Urbashi Behera Temerimal, Paikmal, Bargarh	Aadhaar No.- 629504527728	[20.756808] [82.721812] [20.756913] [82.722538] [20.756341] [82.721406]	Aswagandha	2500
				Tikhur	500
				Amla	400
5	Bikram Saraf Mithapali, Paikmal, Bargarh	Aadhaar No.- 489576759915	[20.898115] [82.800191] [20.897923] [82.800377] [20.898424] [82.800512]	Aswagandha	2500
				Amla	400
				Tikhur	500
6	Suresh Kumar Agarwal Paikmal, Bargarh	Aadhaar No.- 270597186609	[20.925892] [82.838591] [20.927277] [82.839090] [20.9926477][82.839303]	Amla	400
				Sarpagandha	2500
				Tikhur	3500
7	Harihara Sahu Gurunda, Paikmal, Bargarh	Aadhaar No.- 497260827069	[20.900531] [82.804975] [20.900996] [82.805278]	Amla	100
				Aswagandha	2500
8	Satyabhama Rana Pipalkhuta, Paikmal, Bargarh	Aadhaar No.- 908795238051	[20.887784] [82.783087] [20.887611] [82.783147]	Ashwagandha	1500
				Tikhur	500
				Amla	200
9	Nirmala Patel Kudariphasa, Paikmal, Bargarh	Aadhaar No.- 212176663457	[20.872954] [82.790788] [20.873053] [82.790514] [20.873121] [82.790234]	Amla	500
				Aswagandha	1500
				Tikhur	500
10	Bajaru Dharua Monmotpali, Paikmal, Bargarh	Aadhaar No.- 906298275537	[20.889295] [82.779928] [20.889204] [82.779788]	Amla	400
				Sarpagandha	500
				Total No. of QPM distributed	**33000**

Details of QPM Developed & Distributed in Bihar

a. **Medicinal and Aromatic Plant Growers Association of Bihar** raised **39,000 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter ID No.	GPS Location	Species Name	No. of QPM
1	Ashok Sharma Lai, Ramtari, Bihta, Patna	Aadhaar No.- 391606698767	[25.6126] [85.1010] [25.6128] [85.1014] [25.6130] [85.1018] [25.6136] [85.1024]	Aloevera	4000
				Satavar	4000
2	Chandra Mohan Chaudhary Bakhhra, Muzaffarpur	Aadhaar No.- 659865228514	[26.258] [85.1034] [26.255] [85.1036] [26.248] [85.1044] [26.260] [85.1049]	Aloevera	4000
				Satavar	4000
3	Abhay Kumar Singh Alampur, Gonpura, Patna	Aadhaar No.- 818733402598	[25.608929] [85.088389] [25.608358] [85.088365] [25.608376] [85.088381] [25.608395] [85.088353]	Aloevera	4000
				Satavar	4000
4	Asgari Khatoon Bakhhra, Muzaffarpur	Aadhaar No.- 951088586316	[26.0244] [85.1016] [26.0240] [85.1008] [26.0238] [85.1002] [26.0242] [85.1020]	Aloevera	3000
				Satavar	4000
5	Prakash Ray Khajpura, Phulwari, Patna	Aadhaar No.- 682801945789	[25.5091] [83.8923] [25.5219] [83.8962] [25.5216] [83.8915] [25.5282] [83.86915]	Aloevera	4000
				Satavar	4000
				Total No. of QPM distributed	**39000**

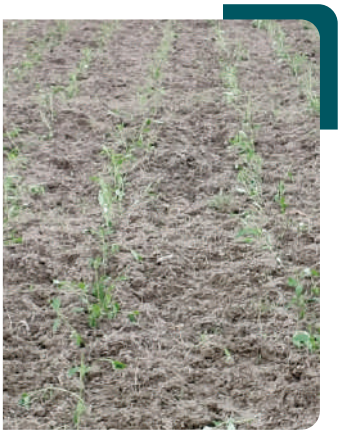




b. Narayani Kela avam Jaivik Fal Udpadak Samuh raised **65,000 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter ID No.	GPS Location	Species Name	No. of QPM
1	Vishwanath Sah Madhurapur, Saraiya, Muzaffarpur	Aadhaar No.- 595351264292	[26.0114] [85.1022] [26.0122] [85.1038] [26.0118] [85.1017] [26.0128] [85.1016]	Kalmegh	6000
				Tulsi	6000
2	Dasharath Sah Bakhra, Saraiya, Muzaffarpur	Aadhaar No.- 800273550234	[26.025305] [85.10156] [26.025312] [85.10142] [26.025306] [85.10138] [26.025318] [85.10160]	Kalmegh	6000
				Tulsi	6000
3	Bhujela das Gosaichhapra, Saraiya, Muzaffarpur	Aadhaar No.- 482470298179	[26.211] [85.447] [26.215] [85.450] [26.210] [85.455] [26.218] [85.440]	Kalmegh	6000
				Tulsi	6000
4	Meghnath Das Gosaichhapra, Saraiya, Muzaffarpur	Aadhaar No.- 719922777428	[26.240] [85.43.5] [26.2424] [85.427] [26.260] [85.418] [26.235] [85.422]	Kalmegh	11000
				Tulsi	6000
5	Lalita Devi Brahampura, Saraiya, Muzaffarpur	Aadhaar No.- 652504690598	[26.020] [85.112] [26.019] [85.1114] [26.029] [85.1110] [26.032] [85.1105]	Kalmegh	6000
				Tulsi	6000
				Total No. of QPM distributed	**65000**



c. **Organic mission** raised **51,000 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter ID No.	GPS Location	Species Name	No. of QPM
1	Shivnarayan Yadav Lohgarh, Jehanabad	Aadhaar No.- 437282890095	[25.213928] [84.987] [25.213921] [84.986] [25.213930] [84.989] [25.213932] [84.981]	Ashwagandha	5000
				Tulsi	6000
2	Yogendra Bhagat Bakhhra, Muzaffarpur	Aadhaar No.- 632919033633	[26.124] [85.100] [26.130] [85.103] [26.132] [85.106] [26.136] [85.109]	Ashwagandha	1000
				Tulsi	6000
3	Kaushalaya Devi Madhurapur, Muzaffarpur	Aadhaar No.- 316901526117	[26.125] [85.111] [26.118] [85.108] [26.120] [85.110] [26.117] [85.115]	Ashwagandha	5000
				Tulsi	6000
4	Manoranjan singh Pabhera, Patna	Aadhaar No.- 894580039848	[25.6138] [84.1099] [25.6159] [85.1032] [25.6162] [85.1069] [25.6175] [85.1023]	Ashwagandha	5000
				Tulsi	6000
5	Sanjay Kumar Lohgarh, Jehanabad	Aadhaar No.- 533635470675	[25.507] [85.112] [25.509] [85.113] [25.512] [85.116] [25.518] [85.120]	Ashwagandha	5000
				Tulsi	6000
				Total No. of QPM distributed	**51000**





Details of QPM Developed & Distributed in Jharkhand

a. Jharkhand Charitable Educational and Rural Development Trust raised **51,000 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter ID No.	GPS Location	Species Name	No. of QPM
1	Sunil Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 4765 6573 6363	[22.868557] [85.856638] [22.868502] [85.856663] [22.868543] [85.856395] [22.868619] [85.856339]	Kalmegh	1100
				Satavar	1700
				Tulsi	1000
2	Bablu Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 7523 1174 7993	[22.868536] [85.855984] [22.86867] [85.855992] [22.868639] [85.856168] [22.868504] [85.856245]	Kalmegh	1000
				Satavar	1650
				Tulsi	1100
3	Jagan Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 8972 8412 6064	[22.868527] [85.855977] [22.868431] [85.855844] [22.868379] [85.856146] [22.868488] [85.856191]	Kalmegh	1000
				Satavar	1650
				Tulsi	1000
4	Guruwari Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 8873 6231 8546	[22.868401] [85.85629] [22.868383] [85.855887] [22.868309] [85.855952] [22.868249] [85.856199]	Kalmegh	1500
				Satavar	1600
				Tulsi	1500
5	Bundiya Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 3583 5426 8621	[22.868223] [85.85626] [22.868116] [85.856292] [22.868121] [85.855946] [22.868114] [85.855975]	Kalmegh	1150
				Satavar	1600
				Tulsi	1150
6	Soyna Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 3706 8252 1969	[22.86835] [85.855853] [22.868378] [85.855601] [22.868281] [85.855636] [22.868169] [85.85575]	Kalmegh	1175
				Satavar	1400
				Tulsi	1175
7	Shiram Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 5411 7707 9202	[22.868022] [85.856152] [22.868011] [85.856002] [22.868004] [85.855955] [22.867903] [85.856171]	Kalmegh	1125
				Satavar	1500
				Tulsi	1125
8	Soyana Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 9898 6744 5193	[22.867926] [85.856243] [22.867941] [85.856227] [22.868] [85.856438] [22.867899] [85.856477]	Kalmegh	1100
				Satavar	1650
				Tulsi	1100
9	Somwari Kumari (Sardar) Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 7422 8375 9195	[22.868001] [85.856636] [22.867975] [85.856636] [22.867947] [85.856741] [22.868001] [85.856746]	Kalmegh	1000
				Satavar	1650
				Tulsi	1000

10	Bagun Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 8908 0111 1355	[22.86799] [85.856853] [22.867949] [85.856886] [22.868029] [85.8569] [22.868525] [85.856958]	Kalmegh	1200
				Satavar	1620
				Tulsi	1200
11	Atwari Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 6121 0664 5925	[22.86809] [85.857126] [22.867974] [85.85717] [22.867947] [85.857108] [22.868016] [85.856819]	Kalmegh	1200
				Satavar	1660
				Tulsi	1200
12	Basu Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 9019 2481 1697	[22.868429] [85.856931] [22.868445] [85.85691] [22.868458] [85.856867] [22.868484] [85.856867]	Kalmegh	1200
				Satavar	1660
				Tulsi	1200
13	Lachman Sardar Raijama, Kharsawangarh, Seraikela, Kharsawan	Aadhaar No.- 4063 4627 5766	[22.868515] [85.856825] [22.86857] [85.85677] [22.868622] [85.856626] [22.86874] [85.856758]	Kalmegh	1250
				Satavar	1660
				Tulsi	1250
				Total No. of QPM distributed	**51000**

b. Amritvani Holistic and Regenerative Agriculture Association raised **36,000 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. /Voter ID No.	GPS Location	Species Name	No. of QPM
1	Subhash Yadav Aragaro, Chandwara, Koderma	Aadhaar No.- 674819676931	[24.429376] [85.478309] [24.429376] [85.478435] [24.429323] [85.478488] [24.429454] [85.47825]	Neem	1000
				Tejpatta	1250
				Bael	1500
2	Hemraj Yadav Aragaro, Chandwara, Koderma	Aadhaar No.- 87592669036	[24.429419] [85.477443] [24.429652] [85.477266] [24.4295] [85.477322] [24.429702] [85.477341]	Neem	1100
				Tejpatta	1200
				Dalchini	800
				Bael	500
3	Kushmi Devi Aragaro, Chandwara, Koderma	Aadhaar No.- 403487213849	[24.431097] [85.477969] [24.431107] [[85.477973] [24.431101] [85.477933] [24.431031] [85.477939]	Neem	100
				Tejpatta	100
				Tulsi	2500
4	Prakash Yadav Chiglabar, Bekobar, Koderma	Aadhaar No.- 430889293040	[24.41189] [85.564535] [24.411194] [85.564542] [24.411197] [85.564547] [24.410758] [85.564927]	Neem	1600
				Tejpatta	600
				Bael	1500
				Dalchini	1000
				Tulsi	2500
5	Ramlakhan Yadav Lokai thana, Baddiha, Koderma	Aadhaar No.- 956929989962	[24.457895] [85.611548] [24.458043] [85.611627] [24.457412] [85.611043] [24.457543] [85.61079]	Neem	700
				Tejpatta	1150
				Dalchini	2000
				Bael	1000
6	Ajay kumar Madagundi, Chandwara, Koderma	Aadhaar No.- 329049527668	[24.373899] [85.493621] [24.374279] [85.494266] [24.374192] [85.493894] [24.373905] [85.493854]	Neem	400
				Tejpatta	650
				Dalchini	1200
				Bael	500
				Tulsi	2000
7	Lakshman Yadav Chiglabar, Dumardiha, Koderma	Aadhaar No.- 690684227317	[24.411192] [85.56437] [24.413124] [85.561891] [24.41098] [85.564746]	Neem	100
				Tejpatta	50
				Tulsi	9000
				Total No. of QPM distributed	**36000**



Details of QPM Developed & Distributed in Sikkim

a. Sewa Lung Nursery raised **15,500 nos.** of QPM of various species and distributed among the farmers whose details are mentioned below:

Sl. No.	Farmers Name & Address	Aadhaar No. / Voter ID No.	GPS Location	Species Name	No. of QPM
1	Kumsa Bir limbo Kyongtek, Yuksam, Gyalshing West Sikkim	Aadhaar No.- 281912440709	[27.373812] [88.22687]	Panax	500
2	Budha Hang Limboo Kyongtek, Yuksam, Gyalshing, West Sikkim	Aadhaar No.- 253168443374	[27.373812] [88.22687]	Panax	500
3	Dil Bahadur Subba Kyongtek, Yuksam, Gyalshing, West Sikkim	Aadhaar No.- 367991186676	[27.37890] [88.22684]	Jatamansi	1500
4	Chandra Lall Subba Kyongtek, Yuksam, Gyalshing, West Sikkim	Aadhaar No.- 762176731151	[27.37890] [88.22684]	Jatamansi	1500
5	Manju Rai Kyongtek, Yuksam, Gyalshing, West Sikkim	Aadhaar No.- 862560586931	[27.378133] [88.22701]	Satuwa	2500
6	San Hang Subba Kyongtek, Yuksam, Gyalshing, West Sikkim	Aadhaar No.- 769887965232	[27.378133] [88.22701]	Satuwa	2500
7	Mandika Rai Kyongtek, Yuksam, Gyalshing, West Sikkim	Aadhaar No.- 492277170690	[27.379125] [88.226467]	Tagara	3250
8	Alasha Subba Kyongtek, Yuksam, Gyalshing, West Sikkim	Aadhaar No.- 992156497796	[27.379125] [88.226467]	Tagara	3250
				Total No. of QPM distributed	**15500**

SECTION

04

CREATION OF COMMON FACILITY FOR PHM / VALUE ADDITION / INNOVATIVE PRODUCTS

1 Post-harvest processing Unit for value addition of Medicinal Plants in Bihar

Background:

Adhaura block of Kaimur district, situated in the south-western part of Bihar, represents a geographically expansive yet socio-economically challenged region. Covering an area of approximately 923 sq. km, the block is home to a population of 56,720, out of which a significant proportion—about 52.32%—belongs to tribal communities, as per the Census 2011. The terrain is largely hilly and forested, with more than 70% of the land under forest cover, making it rich in biodiversity and natural resources.

However, socio-economic development of local population—especially tribal communities in the region is constrained by low literacy rates, inadequate infrastructure, and poor connectivity to markets. Although the forests provide a variety of non-timber forest products (NTFPs), including medicinal plants, herbs, and other minor forest produce, the absence of organized market linkages and processing facilities forces local collectors and farmers to sell raw materials at very low prices to intermediaries. This significantly reduces their potential income and perpetuates cycles of poverty and economic dependency.

In recent years, efforts have been made to introduce medicinal plant cultivation as an alternative and sustainable livelihood option. Vanvasi Seva Kendra in collaboration with Krishi Vigyan Kendra (KVK), Adhaura have been playing a proactive role in promoting the cultivation of high-value medicinal species like Kalmegh, Aloe vera, Tulsi, Ashwagandha, Safed Musli, and Sarpagandha. These crops are well-suited to the agro-climatic conditions of the region and require relatively low inputs compared to conventional crops. Moreover, the growing demand for herbal and Ayurvedic products in local and global markets "presents a significant opportunity for income enhancement. RCFC-ER also undertook the initiative to conduct a survey to assess and highlight the existing herbal resources of the area. During the survey, RCFC-ER team identified and documented several medicinal plant species growing naturally in the region. RCFC-ER also organized a Training on Nursery & Cultivation, PHM & Processing, Value Addition & Marketing of Medicinal Plants at KVK, Adhura, Kaimur during 2025-26 for overall promotion of good cultivation and collection practices in the area.

However, the full economic potential of medicinal plant cultivation remains largely untapped due to the lack of post-harvest infrastructure and value addition facilities. Farmers are often compelled to sell raw or semi-processed produce, which fetches lower prices and limits profitability. Issues such as improper drying, poor storage, contamination, and lack of quality standardization further reduce market competitiveness.

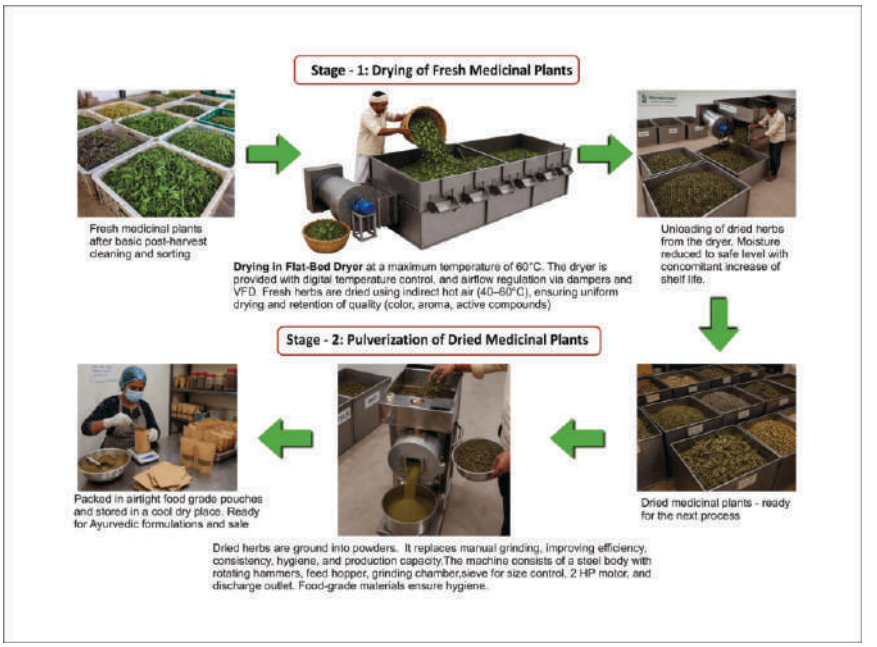
Work Done:
In this context, Regional-cum- Facilitation Centre, Eastern region (RCFC-ER), National Medicinal Plants Board, Ministry of AYUSH, Govt. of India, Jadavpur University, Kolkata, provided support for establishing a dedicated post-harvest processing unit for medicinal plants at Vanvasi Seva Kendra in Adhaura to create local employment opportunities across the value chain—from cultivation and collection to processing and marketing—thereby contributing to year-round livelihood security, under the approved component of Creation of Common Facility for Post-Harvest Management (PHM) and Value Addition.

The post-harvest processing unit comprises of the following components:

1. **Flat Bed Dryer for Medicinal Plants**
   The flat bed dryer at Vanvasi Seva Kendra (VSK) is a key post-harvest unit addressing quality loss, fungal contamination, and low market value due to improper handling. It enables controlled drying of herbs like Tulsi, Kalmegh, Ashwagandha, Satavar, and Amla, ensuring preservation of phytochemicals, prevention of microbial growth, improved shelf life, and standardized moisture content. This supports VSK's goal of scientific processing and helps tribal farmers shift to higher-value dried products, reducing losses and improving income.
   The unit (7 ft × 3 ft bed) supports batch drying of various plant parts. It includes a drying chamber with mesh tray, LPG/biogas-based hot air system, blower, air ducts, and insulated body. Capacity is 250 kg per batch, with a maximum temperature of 60° C, digital temperature control, and airflow regulation via dampers and VFD.
   Fresh herbs are dried using indirect hot air (40–60° C), ensuring uniform drying, retention of quality (color, aroma, active compounds), and prevention of contamination. The system avoids direct flame exposure.
   Dual fuel use (LPG/biogas) provides flexibility—LPG for reliability, biogas for cost-effective and eco-friendly operation.
   Advantages:
   Scientific drying, reduced spoilage, higher market value, quality standardization, all-weather operation, suitability for small rural units.
   Role:
   Supports primary processing, improves storage and marketability, and strengthens the herbal value chain.

2. **Hammer Mill Grinder for Herbal Processing**
   The hammer mill grinder enables conversion of dried herbs into fine powders (churna) for Ayurvedic formulations like Triphala and Shitopaladi. It replaces manual grinding, improving efficiency, consistency, hygiene, and production capacity.
   The machine consists of a steel body with rotating hammers, feed hopper, grinding chamber, sieve for size control, 2 HP motor, and discharge outlet. Food-grade materials ensure hygiene.
   Dried herbs are crushed by high-speed hammers and passed through sieves for uniform particle size.
   Capacity: 30 kg/hour
   Suitable for: Leaves (Tulsi), roots (Ashwagandha), fruits (Amla), bark (Arjun) etc.
   Key Features: Adjustable fineness, high efficiency, compact design, easy operation, low maintenance.
   Advantages:
   Uniform grinding, improved quality, better bioavailability, reduced labor, scalable production.

Role: Supports secondary processing, enabling production of market-ready herbal powders, value addition at source, employment generation, and better price realization.



Overall Outcome:
The flat bed dryer and hammer mill together enable local processing, value addition, reduced middlemen dependence, sustainable livelihoods, and strengthening of the Ayurvedic production unit—transforming the system into a complete community-based value chain.

2 Medicinal Plants Value Addition and Processing Unit in West Bengal

Background:
A three-kilometer stretch along the India–Bangladesh international border in Kadipur village, under Krishnaganj Block of Nadia District, West Bengal, has been transformed into a vibrant ecological corridor known as "Arogya Marg". This initiative is the result of a collaborative effort between the 32 Battalion of the Border Security Force (BSF), local villagers, and technical support from RCFC-ER, NMPB, Jadavpur University.
During the financial year 2023–24, BSF availed support from RCFC-ER, NMPB, JU for sourcing and distributing Quality Planting Materials (QPM) of medicinal plants among beneficiaries. This intervention aimed to promote medicinal plant cultivation in the border areas and enhance the livelihoods of local communities through sustainable and income-generating practices. With a broader vision of fostering economic self-

sufficiency, the initiative focuses on empowering marginalized youth by engaging them in productive activities, thereby contributing to a more peaceful, resilient, and well-managed border region. Nadia District Medicinal Farmers Cluster Committee—also a beneficiary of RCFC-ER—facilitated the supply of high-quality planting materials through NEPO Agro FPO Multipurpose Co-operative Society Ltd. These included Satamuli (*Asparagus racemosus*), Aloevera (*Aloe vera*), Kulekhara (*Hygrophila auriculata*), and Nayantara (*Catharanthus roseus*).
Beyond cultivation, BSF also emphasized strengthening the value chain through value addition of medicinal plants. In response, RCFC-ER organized a workshop during FY 2024–25 focusing on Aloevera processing and lifestyle products development. The training provided hands-on exposure to processing techniques, commercialization strategies, and market opportunities, equipping participants with both technical and entrepreneurial skills.

Work done:
For further sustainability and scaling up, RCFC-ER, supported NEPO Agro FPO Multipurpose Co-operative Society Ltd. for the "Establishment of a Medicinal Plant Value Addition and Processing Unit", at Betna, Hanskhali, Krishnaganj, Nadia, West Bengal, under the approved component of Creation of Common Facility for Post-Harvest Management (PHM) and Value Addition. The unit is set to establish a small-scale, hygienic, and efficient processing facility for medicinal and aromatic plants cultivated by local farmers and Self Help Groups (SHGs) in the border region of Nadia District, West Bengal. The facility is designed to enhance the value of raw produce by converting it into market-ready products such as herbal teas & juices, powders, oils, and extracts. The key objectives include improving product quality and standardization, increasing production and processing capacity, ensuring hygiene and quality control, generating rural employment, especially for women and promoting sustainable livelihood opportunities. By strengthening capabilities in processing, packaging, and marketing, the initiative aligns with the broader goal of promoting medicinal plant-based entrepreneurship and supporting the growth of the herbal sector.

The Processing Unit comprises of the following components:

1. **Medicinal Plant Slicing, Pulping, Juicer Machine**
   The Medicinal Plant Slicing, Pulping, Juicer Machine is a stainless steel (SS) body unit, operated manually or through a gear-driven mechanism, designed to cut medicinal plants into uniform slices and convert the slices into pulp/juice. The machine ensures quick and hygienic processing of fleshy plant materials.
   This equipment is very useful in the initial stages of cleaning, sorting, and primary processing of raw medicinal plants. Fresh medicinal plants, being a high-moisture commodity, requires immediate and uniform slicing and pulping to facilitate further processing into food and beverage formulations. The machine significantly improves processing efficiency and hygiene standards by eliminating the need for manual cutting and pulping. It provides uniform size reduction, which is essential for maintaining consistent product quality across batches. Additionally, it enables diversification into value-added aloe-based products such as juice, gel, and dried slices, aligning with the objective of expanding the product range. By reducing labour requirements and increasing throughput, the machine also supports the scalability and overall productivity of the processing unit.

2. **Stainless Steel Drum with Stirrer**
   A 100-litre capacity stainless steel (SS 304 grade) drum fitted with a motorized stirrer/agitator. It is designed for mixing, blending, and homogenizing liquid and semi-liquid formulations under hygienic conditions.
   The equipment is vital in the blending, formulation, and preparation of herbal products such as teas, powders, and oils, ensuring efficient and reliable processing. It provides uniform mixing of ingredients, which is essential for maintaining consistent product quality and efficacy. The system is well-suited for preparing herbal extracts, liquid formulations, and oil-based products, aligning with the proposed product lines. Its SS 304 construction ensures adherence to food-grade hygiene standards, addressing quality and safety concerns. Furthermore, the equipment supports standardization and batch processing, which are critical for branding, quality control, and large-scale commercial production.

3. **Single Head Volumetric Filling Machine**

A semi-automatic filling machine suitable for filling liquids and semi-liquids in containers (200–250 ml adjustable range). It ensures precise volumetric filling with minimal wastage.

This equipment is essential for packaging and ensuring market readiness of value-added products, supporting the final stage of production. It enables accurate and consistent filling, which is crucial for maintaining product standardization and meeting regulatory compliance requirements. The machine is suitable for filling herbal juices, oils, extracts, and semi-liquid products produced by the unit, making it versatile for the proposed product range. By enhancing operational efficiency and minimizing manual errors, it improves overall productivity. Additionally, it supports commercial-scale packaging, facilitating the transition from small-scale operations to organized and market-oriented production as envisioned in the project.

4. **Induction Sealing Machine**

A portable induction sealing machine used for sealing containers with foil-lined caps using electromagnetic induction. It provides airtight and tamper-proof sealing.

The critical component of the processing unit incorporates packaging and sealing operations ensuring the protection and quality of finished products. The sealing machine is to provide airtight sealing, safeguarding products from moisture, contamination, and spoilage, thereby enhancing shelf life and overall product stability, which is essential for effective market distribution. It also enables tamper-proof packaging, increasing consumer trust and acceptance. Furthermore, proper sealing supports branding and retail marketing by ensuring that products meet established market standards and quality expectations.

Overall Outcome:

The above machinery collectively strengthens the processing-to-packaging segment of the proposed unit by complementing the core equipment such as grinders, dryers, and distillation units. The invoiced machinery plays a vital role in the primary processing of raw materials, blending and formulation of herbal products, and ensuring accurate filling and packaging. It also contributes significantly to maintaining hygiene, product quality, and shelf stability throughout the production cycle. These integrated functions are essential for achieving key project objectives, including enhancing value addition of medicinal plants, improving product quality and standardization, enabling market-ready packaging, and ultimately supporting income generation and rural entrepreneurship.

SECTION

05

MARKETING INITIATIVES

Marketing Initiatives

1. As part of a strategic marketing initiative for medicinal plants, a meeting was held on 4th April 2025 with Mr. Rinaj Rai, a journalist from Kharagpur, West Bengal. During the interaction, he expressed keen interest in associating as an investor with a cluster of farmers identified by him in Jhargram, West Bengal for the cultivation, value addition, and market linkage of medicinal plants under RCFC-ER, Jadavpur University, Kolkata.
2. Hindustan Enterprise, Karnataka, was linked with the NEPO Group, West Bengal, on 17th April, 2025. Under this collaboration, NEPO will supply Ekangi seeds to Hindustan Enterprise.
3. Officials of RCFC-ER visited "GIFTS Expo", Kolkata 2025, on 18th April, 2025 to gain exposure to Emerging Market Trends and Packaging Innovations, particularly in relation to medicinal and aromatic plant based products.
4. 'Bankura Organics', an organization engaged in medicinal plants cultivation has been linked with 'Bankura Sammilani Trust' for the development of a nursery in Bankura city under the Trust, with technical guidance from RCFC-ER.
5. Phytobiox Manufactures Pvt. Ltd., an Odisha-based organization involved in medicinal & aromatic plants based product development and marketing, was linked with Sai Biocare, a quality testing laboratory in Odisha, on 12th June, 2025. Sai Biocare agreed to support Phytobiox by providing testing and quality control services.
6. Mr. Palash Sarkar of Maheshtala Municipality, Kolkata, West Bengal, was linked with NEPO Agro FPO Multipurpose Co-operative Society Ltd. for the procurement of Red Sandalwood (*Pterocarpus santalinus*) and White Sandalwood (*Santalum album*) saplings.
7. Mr. Dipankar Hazra, a bank employee from Tarakeshwar, Hooghly, West Bengal, was connected with NEPO Agro FPO Multipurpose Co-operative Society Ltd. for the procurement of Red Sandalwood saplings.
8. On 30th August, 2025, Dr. Debiprosad Chakraborty (Ayursathi) was linked with Mr. Saikat Majumder (Jansuddhi) regarding the marketing of Ayursathi's products through the Jansuddhi platform and provide guidance for developing strategies to expand Jansuddhi's outreach among medicinal plant-based product manufacturers in Eastern India.
9. As part of a strategic marketing initiative for medicinal plants, Leaf & Roots, a start-up from West Bengal engaged in the value addition and development of medicinal plant-based products, was connected with 'Jansuddhi', a marketing platform for organic and herbal products, to facilitate market access and enhance product outreach.
10. A linkage was established on 15th October, 2025 between Avi's Enterprise, West Bengal, and Green Jackpot International, an NGO from Odisha, for the supply of 50,000 Ashwagandha saplings.
11. As part of a tactical marketing initiative of RCFC-ER, to promote value addition using locally available medicinal plants resources and to support small and micro-entrepreneurs, Mr. Avishek Pal, an entrepreneur from Saguna, Nadia, West Bengal, has developed a health revitalization ladoo with strong potential for scale-up and commercialization in local wellness and nutraceutical markets. The formulation includes key medicinal plant-based ingredients such as Ashwagandha (*Withania somnifera*), Shatavari (*Asparagus racemosus*), Bael (*Aegle marmelos*), and Triphala churna, (consists of *Phyllanthus emblica*, *Terminalia chebula*, and *Terminalia bellirica*. . These raw materials are responsibly sourced and processed by Mr. Pal under the technical guidance of RCFC-ER, with additional inputs aligned with the Ayurvedic Pharmacopoeia from experienced Ayurvedic practitioners and traditional healers.

12. On 4th November, 2025, a meeting was held at RCFC-ER with Mr. Satish Agarwal (Chartered Accountant, Stag & Associates) and Mr. R. Ranjan of IOT Agribusiness Pvt. Ltd., accompanied by Mr. Joydeep Bose, to explore opportunities for Tulsi (*Ocimum tenuiflorum*) cultivation and value-added processing in Bankura district, West Bengal. The discussion focused on developing a commercially viable medicinal plants enterprise, covering cultivation feasibility, value addition, and market demand. RCFC-ER agreed to provide technical support and facilitate market linkages.
13. A meeting was held on 16th December, 2025 with Dr. Chandra Chandrasegaran from M/s. Glass Pack, a leading manufacturer and supplier of high-quality glass bottles for the pharmaceutical and Ayurvedic industries based in Kandy, Sri Lanka, to discuss about the technical support from RCFC-ER for diversification of his business through the sourcing of authenticated raw medicinal herbs, as well as collaborative product development initiatives with medicinal plants.
14. On 26th December, 2025, a meeting was held with Mr. Subir Das from M/s. Global Herbs, Kolkata to discuss the sourcing of raw medicinal herbs from various states under the jurisdiction of RCFC-ER. He expressed strong interest in procuring Ekangi (*Kaempferia galangal*), Pipul (*Piper longum*), Black turmeric (*Curcuma caesia*), Brahmi (*Bacopa monnieri*), Thankuni (*Centella asiatica*) and Kalmegh (*Andrographis paniculata*)., and other medicinal plants in bulk quantities.
15. RCFC-ER facilitated a linkage between Mr. Debu Roy, a farmer from Udham Singh Nagar, Uttarakhand and Mr. Subir Das of Global Herbs, Kolkata, through a meeting held on 19th January, 2026 for the procurement of medicinal plant herbs from Uttarakhand.
16. On 18th February, 2026, under the guidance of RCFC-ER, Turmeric (*Curcuma longa*) samples were sent by Kalpataru Welfare Society an NGO from West Bengal to Sami Sabinsa Group, Bengaluru, for quality testing and potential future orders. Sami Sabinsa is also exploring opportunities to source high-quality, pesticide-free Brahmi (*Bacopa monnieri*) from the NGO.
17. On 30th March, 2026, under the guidance of RCFC-ER Mr. Ashish Somani of Karbo Kissan, Bihar was linked with Mr. Debu Roy, a farmer and aggregator from Uttarakhand, for the procurement of 50 MT of dried white Shatavari (*Asparagus racemosus*).
18. Bi-monthly real-time data on market rates of top 100 Medicinal and Aromatic Plants was collected and sent to NMPB, as well as uploaded in the e-charak website. The information was gathered from Kolkata, Siliguri Mandi from West Bengal, Behrampur, Khairar Road Mandi from Odisha, Patna Mandi from Bihar and Deoghar Mandi from Jharkhand.

19. Species-wise demand and supply data collection of cultivators: (Details in Annexure I)

A.Synopsis of medicinal plants cultivator's data from Nadia district in West Bengal.

District Name	Crops Name	Total Farmers	Production in Kg (Raw)	Production in Kg (Dry)	Cultivated Area (ha)
Nadia	Ekangi, Ghritakumari, Potol Panchang	334	1210930	301762.3	70.51

B.Synopsis of medicinal plants cultivator's data from Darbhanga, Saran, Jamui, Kaimur, Muzaffarpur, Samastipur, Vaishali, districts in Bihar.

Sl. No.	District Name	Crops Name	Total Farmers	Production in Kg (Raw)	Production in Kg (Dry)	Cultivated Area (ha)
1	Darbhanga, Bihar	Kalmegh	2	Not yet harvested	Not yet harvested	0.81
		Chia Seed		150	150	
2	Saran, Bihar	Tulsi	3	13000	2650	2.02
3	Jamui, Bihar	Kalmegh	8	Not yet harvested	Not yet harvested	7.4
		Kaunch		Not yet harvested	Not yet harvested	
		Chia Seed		3399	3399	
4	Kaimur, Bihar	Kalmegh	2	Not yet harvested	Not yet harvested	0.61
		Kaunch		Not yet harvested	Not yet harvested	
5	Muzaffarpur, Bihar	Kalmegh	4	Not yet harvested	Not yet harvested	4.05
6	Samastipur, Bihar	Kalmegh	10	63900	15900	25.34
		Bhringraj		Not yet harvested	Not yet harvested	
		Tulsi		400	100	
		Kalmegh		7500	1500	
		Chia Seed		5950	5950	
7	Vaishali, Bihar	Kalmegh	7	102000	23400	14.2
		Tulsi		80000	16000	
		Brahmi		Not yet harvested	Not yet harvested	
		Bhringraj		400	100	
		Kalihari		100	25	
		Tulsi		25000	5000	
		Total	**36**	**-**	**-**	**54.43**

20. Schedule TA data collected from the AYUSH Drug Manufacturers in the Eastern Region:

A. List of AYUSH manufacturing units from where Scheduled TA data were collected in the Eastern Region

Sl. No.	Name of Manufacturing Units	Address
1	A.K.A. Chemicals Pvt. Ltd.	Hariharpara, Murshidabad, West Bengal 742166
2	Akansha Hair and Skin Care Herbal Unit pvt. Ltd.	S20/1, and S20/2, Kasba Industrial Estate, Phase 1, West Bengal
3	Arvesa Ayurvedic	B3-66A/new, Budge Budge Trunk road, 3rd Floor, Maheshtala, 24 Parganas South, Kolkata-700141, West Bengal
4	Asa Ayurved	Vill - Jararnagar, P.O. - Heria, P.S. – Amalaki, Vill. Jaranagar, P.O. Heria, P.S. Khejuri, West Bengal 721430
5	Ashirwad Health Care Products	Vill+PO- Terra, PS- Karpi, Arwal, Bihar 804419
6	Beston Herbal Products	31, Prasanna Chaterjee Road, P.O. Ghola Bazar, Kolkata- 700111, West Bengal
7	Bhabani Aushadhalaya Dacca	&0, Arabindo Road, Naihati, West Bengal, 743165
8	Bhagabat Drugs and Pharmaceutical Laboratories Pvt. Ltd.	Sampur, Jagatsinghpur, Odisha 754104
9	Biosourcing.com pvt. ltd.	251, Goudakashipur, Janla, Odisha, 752054
10	Branolia Chemical Works	Kaba, Industrial Extate, Phase II, Plot No. 31, EM Bypass, Kolkata 7000108, West Bengal
11	Cannavedic pvt. Ltd.	Plot no. 4D/1234, CDA - 10, Odisha, 753014
12	Chyavan Ayurvedic Research Laboratorie	5A, Khalisakota Pally, Birati, Kolkata, West Bengal, 700051
13	Deys Medical Stores Mfg. Limited	62, Bondel Road, West Bengal, 700019
14	DNA formulations	At-Plot No 1832, Sankar Pur, Bhubaneswar, Khorda, Odisha
15	G. D. Pharmaceiticals Pvt. Ltd.	Chakbagi, Bishnupur, Diamond Harbour Road, West Bengal, 743503
16	Hempcann Solutions Pvt. Ltd.	Plot No 266/3328, Gangadhar, Meher Marg Post - KIIT, Bhubaneswar 751024, Odisha
17	Herbal Research Institute	178, N.S Avenue, Serampore, Hooghly 712201, West Bengal
18	Herbomed Private Limited	237/C, S.D. Chatterjee Road, P.O. and P.S. Baruipur-700144, West Bengal
19	Himsons Wellness	Ward No. 10, Dafali Muhalla Main Road, Garhwa, Jharkhand, 822114
20	Indian Drug Laboratories	58, Maharaj Nanda Kumar Road, Mahajati Nagar, Block IV, Birati, Kolkata – 700051, West Bengal
21	Indian National Drug Company Private Limited	4, Dr SC Banerjee Rd, Subhas Sarobar Park, Phoolbagan, Beleghata, Kolkata, West Bengal 700010
22	Indigenco Pharmaceuticals Pvt. Ltd.	Morepukur, Dakshinpara, Rishra, West Bengal - 712250
23	Jaya Herbal	356, Elias Road, Kolkata 700058, West Bengal
24	Jha Ayurvedic Company	X.T.T.I. Road, Digha, Patna, Bihar
25	Jupiter Pharmaceuticals Ltd.	620, Diamond Harbour Road, Behala Industrial Estate, Kolkata 700034, West Bengal

26	Kalyani Chemicals	Gandhi Nagar, Kahalgaon, Bhagalpur, Bihar, Pin - 813 20
27	M/s R. Chem Pharmaceuticals	Mohania-Kaimur, Bihar
28	M/s Suraj Pharmaceuticals (India) Pvt. Ltd.	Suraj Nagar, Manoharpur, Kachhuara, Patna 800016, Bihar
29	Masolin Herbal Pvt ltd	Palm Village complex, Bhasa, D.H. Road, West Bengal 743503
30	Micro Laboratory	Vill. & P.O. Ashurali, Bankura, West Bengal 722154
31	Rasayan Sarani	At-plot no-133, khata no-821/245, At/PO/PS/- Panikhoili, Dist-Jajpur, Odisha, Pin 755043
32	Truu Ayurvedics	At- Plot no 2084/5995, Khata no 1622/1475, Main Road, Sikharpur, P. O.- Bhabandha, Ganjam, Odisha, 761003
33	Organic Orchards Pvt. Ltd.	Bill. Paschim Krishnapur, Arambagh, Hooghly, West Bengal. 712610
34	Partambull Gobindram	117, Purushottam Roy Street, Kolkata-700007, West Bengal
35	Patrochem Pharma	100/1 M P Sarani Pratapgarh P.O. -700049, West Bengal
36	People's Research Laboratory	24, Kalimuddin Sarkar Lane, Kokata 700010, West Bengal
37	Santi Oushadhalaya Hooghly Dacca	D.P.M Road, Sahebbagan, Chandannagar, Hooghly, West Bengal, 712136
38	SD Pharmaceuticals	Gurdaha, Nutan Pally, Shyamnagar, West Bengal 743127
39	Shree Baidyanath Ayurved Bhawan Pvt. Ltd.	Baidyanath Bhawan Road, Patna, Bihar, 800001
40	Shree Baidyanath Ayurved Bhawan Pvt. Ltd.	Hajipur, Industrial Area, Hajipur -844101, Bihar
41	Swasti Sevak Kutir Shilpam	Kalinagar, Po, Krishnanagar, West Bengal, 741101
42	Zimalaya Drug Pvt. Ltd.	C-6,7, Industrial Area Nawada, Bihar 805110

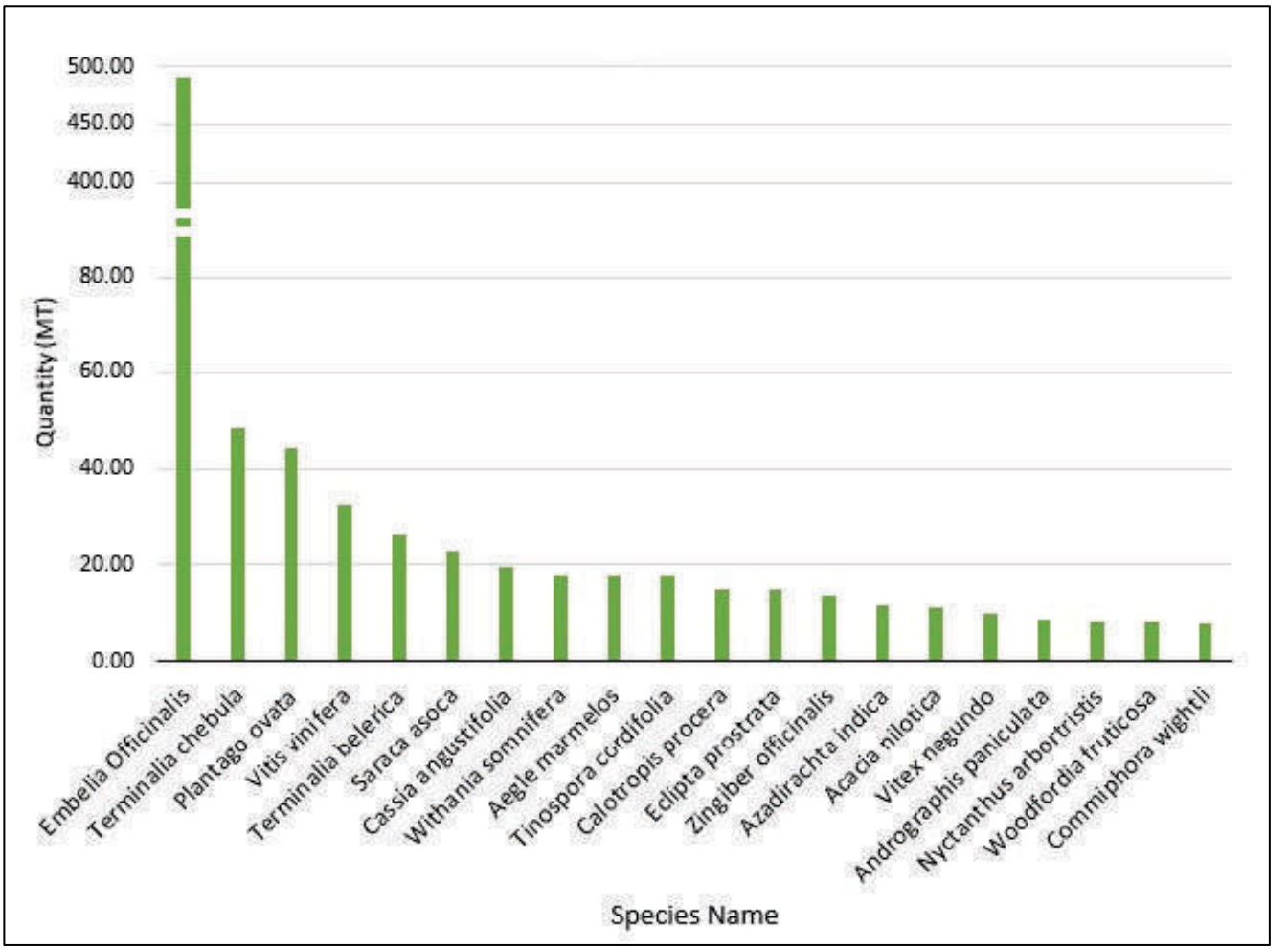
B. List of Raw Herbs (usage at least 5 MT or above) as per Schedule TA Data collected from the Eastern Region States by RCFC-ER.

Sl. No.	Common Name as in API/AFI	Botanical Name	Plant Part Used	Quantity Used/ per Annum (in MT)	No. of Manufacturing Units
1	Ajwain	*Trachyspermum ammi*	Seed	5.33	15
2	Amla	*Embelia Officinalis*	Fruit	490.89	31
3	Arka	*Calotropis procera*	W/Plant	15.00	6
4	Ashok	*Saraca asoca*	Bark	23.07	19
5	Ashwagandha	*Withania somnifera*	Root	17.99	36
6	Babool	*Acacia nilotica*	Bark	11.30	5
7	Bel Chhal	*Aegle marmelos*	Leaf	7.47	4
8	Bhringraj	*Eclipta alba*	W/Plant	8.63	17
9	Bhringraj	*Eclipta prostrata*	Leaf	6.37	9
10	Bhumi Amla	*Phyllanthus niruri*	W/Plant	5.51	13
11	Bibitaka	*Terminalia belerica*	Fruit	26.41	29
12	Bilva	*Aegle marmelos*	Fruit	17.85	16
13	Dhaiphool	*Woodfordia fruticosa*	Flower	8.11	18
14	Dhania	*Coriandrum sativum*	Fruit	5.90	18
15	Giloy	*Tinospora cordifolia*	Fruit	17.76	23
16	Guggul	*Commiphora wightli*	Others	7.85	11
17	Harad Choti (Small)	*Terminalia chebula*	Fruit	10.26	2
18	Haritaki (Big)	*Terminalia chebula*	Fruit	38.23	32
20	Harsingar Patti	*Nyctanthus arbortristis*	Leaf	8.14	4
21	Isabgul	*Plantago ovata*	Seed	44.06	7
22	Kalmegh	*Andrographis paniculata*	W/Plant	8.89	23
23	Munakka Mavej	*Vitis vinifera*	Fruit	32.54	12
24	Neem	*Azadirachta indica*	Leaves	9.90	17
25	Nirgundi Panchang	*Vitex negundo*	W/Plant	10.06	15
26	Pippali	*Piper longum*	Fruit	8.18	24
27	Pit Papra	*Fumaria parviflora*	W/Plant	5.09	10
28	Punarnava Panchang	*Boerhavia diffusa*	W/Plant	7.40	18
29	Shatavari	*Asparagus racemosus*	Root	5.07	20
30	Sonth	*Zingiber officinalis*	Root	11.45	28
31	Swarnaputri	*Cassia angustifolia*	Leaf	19.38	16
32	Talis Patra	*Abroma augusta*	W/Plant	12.80	11
33	Til	*Sesamum Indicum*	Seed	23.71	10
34	Vaividing	*Embelia ribes*	Fruit	5.25	20
35	Vasak	*Adhatoda vasica*	Leaf	5.57	16

C. List of Raw Herbs (usage at least 1 MT but below 5 MT) as per Schedule TA Data collected from the Eastern Region States by RCFC-ER.

Sl. No.	Botanical Name	Sl. No.	Botanical Name
1	*Acacia catachu*	34	*Lens culinaris*
2	*Acorus calamus*	35	*Mesua ferrea*
3	*Adhatoda vasica*	36	*Mornica oleifera*
4	*Alhagi maurorum*	37	*Mornica oleifera*
5	*Aloe vera*	38	*Mucuna pruriens*
6	*Amomum subulatum*	39	*Ocimum sanctum*
7	*Amorphophallus paeoniifolius*	40	*Operculina turpethum*
8	*Anethum graveolens*	41	*Oroxylum Indicum*
9	*Bacopa monnieri*	42	*Picrorhiza kurroa*
10	*Baliopermum montanum*	43	*Piper longum*
11	*Bambusa Arundinacea*	44	*Piper nigrum*
12	*Berberis aristata*	45	*Piper Retrofractum*
13	*Cannabis sativa Linn.*	46	*Pluchea lanceolata*
14	*Cassia angustifolia*	47	*Plumbago zelanica*
15	*Cedrus deodara*	48	*Premna mucronata*
16	*Chlorophytum arundinaceum*	49	*Pterocarpus marsupium*
17	*Cinnamoum zeylanicum*	50	*Pueraria tuberosa*
18	*Cissampelos pareira*	51	*Rubia cordifolia*
19	*Cuminum cumini*	52	*Saccharum officinarum*
20	*Curcuma longa*	53	*Santalum album*
21	*Curcuma Zedoaria*	54	*Senna alexandrina*
22	*Cyperus rotundus*	55	*Sida cordifolia*
23	*Desmodium gangeticum*	56	*Sida cordifolia*
24	*Glycirrhija glabra*	57	*Solanum indicum*
25	*Gmelina arborea*	58	*Swertia chirayita*
26	*Gymnema sylvestris*	59	*Symplocos racemosa*
27	*Hemidesmus Indicus*	60	*Syzygium cumini*
28	*Holarrhena pubescens*	61	*Tecomella undulata*
29	*Hollarhena antidysenterica*	62	*Terminalia arjuna*
30	*Hordeum vulgare*	63	*Tribulus terrstris*
31	*Hygrophila auriculata*	64	*Trigonela foenugraecum*
32	*Ichnocarpus frutescens*	65	*Zanthoxylum armatum*
33	*Juniperus communis*		

D.Graphical representation of **Top 20 Medicinal Plants** used by AYUSH drug manufacturers in different states of the Eastern Region as per data collected and received by RCFC-ER.



21. Data collected from line Departments and other organizations in the region for area covered (in hectare) under cultivation of medicinal plants
Private Sector/ Individual organization cultivating medicinal plants with their own efforts:

I. Karbo Kisaan, Bihar

Sl. No.	District, State	Name of Species	Area under cultivation (ha)
1	Vaishali, Bihar	Brahmi Bhringraj Kalihari Kalmegh Tulsi	0.20 0.04 0.20 6.88 6.88
2	Samastipur, Bihar	Bhringraj Kalmegh Tulsi	0.04 15.79 0.40
3	Saran Bihar	Tulsi	2.02
4	Muzaffarpur, Bihar	Kalmegh	4.05
5	Darbhanga, Bihar	Chia Kalmegh	0.40 0.4
6	Jamui, Bihar	Kaunch Kalmegh Chia	0.81 2.02 4.58
7	Kaimur, Bihar	Kaunch Kalmegh	0.40 0.20
Total Area under cultivation			**45.31**

II. Kalpataru Welfare Society, West Bengal

Sl. No.	District, State	Name of Species	Area under cultivation (ha)
1	South 24 Parganas, West Bengal	Brahmi	5
2	North 24 Parganas, West Bengal	Brahmi	2
3	Nadia, West Bengal	Ekangi	10
4	Jalpaiguri, West Bengal	Narkachur	5
Total area under cultivation			**22**

III. NEPO Agro FPO Multipurpose Cooperative Society Ltd.

Sl. No.	District, State	Name of Species	Area under cultivation (ha)
1	Nadia,	Ekangi Rakta Chandan Ashwagandha	69.20 129.49 32.37
2	Darjeeling	Ekangi	58.67
Total Area under cultivation			**289.75**

Medicinal Plants with scientific name: Ekangi (*Kaempferia galanga*), Ghritakumari (*Aloe vera*), Potol Panchang (*Trichosanthes cucumerina*), Rakta Chandan (*Pterocarpus santalinus*), Ashwagandha (*Withania somnifera*), Kalmegh (*Andrographis paniculata*), Tulsi (*Ocimum tenuiflorum)*, Brahmi (*Bacopa monnieri*), Bhringraj (*Eclipta prostrata*), Kalihari (*Gloriosa superba*), Kaunch (*Mucuna pruriens*), Narkachur (*Curcuma zedoaria*), Chia seed (*Salvia hispanica).*

SECTION

06

MEETINGS AND LINKAGES

Meetings

1. Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER NMPB, JU and Dr. Soumyajit Biswas, Project Manager, RCFC-ER, NMPB, JU, participated in the 7th meeting of the Advisory Committee of Regional Cum Facilitation Centres (RCFCs) of NMPB, Ministry of AYUSH, Govt. of India at Delhi on 28th April, 2025 for the performance assessment of Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER).
2. A meeting was conducted on 3rd April, 2025 with Mr. Abhijit Sengupta, a real estate promoter, who sought technical knowledge and guidance on the cultivation of Ekangi and other medicinal plants within urban open spaces in Kolkata, as part of his proposed city-centric farming initiative. The meeting was attended by Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, Jadavpur University, on behalf of RCFC-ER.
3. On 28th April, 2025, a meeting was held with Mr. Kaushik Maity, an entrepreneur from Midnapore, who expressed his interest in establishing a medicinal plant nursery along with cultivation and extraction facilities on approximately 4 bighas of land in Debra. He approached RCFC-ER seeking technical guidance and support for market linkages. The meeting was attended by Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, Jadavpur University, on behalf of RCFC-ER.
4. RCFC-ER participated in an online "Brainstorming Session with Stakeholders in the Medicinal Plant Sector" held on 5th May, 2025, under the co-chairmanship of the Secretary, Department of Agriculture & Farmers Welfare and the Secretary, Ministry of AYUSH, with the objective of promoting the medicinal plants sector. During the session, RCFC-ER put forward several key recommendations, including the introduction of crop insurance for medicinal plants, precise allocation of species-wise HSN codes to enable accurate estimation of export demand, and making the availability of the Technical Advisory (TA) schedule mandatory. Additionally, RCFC-ER emphasized the need for establishing affordable laboratory testing facilities at the state and district levels for cultivators, and for supporting marginal farmers through cluster formation, improved post-harvest management, value addition, and enhanced marketing opportunities through digital platforms for small-scale entrepreneurs.
5. A meeting was held on 2nd May, 2025 with Mr. Anirban Chatterjee and Mr. Abhishek Singh of Bankura Organics to discuss potential support in medicinal plants based product development and marketing, along with the organization of training and awareness programmes for local farmers in Bankura. Dr. Soumyajit Biswas, Project Manager and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER NMPB, JU represented RCFC-ER at the meeting.
6. On 15th May, 2025, a meeting was conducted with Mr. Sumanta Roy and Mrs. Banani Roy, proprietors of M/s. SR, a wood import company exploring diversification into the cultivation of medicinal plants. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER NMPB, JU attended the meeting on behalf of RCFC-ER.
7. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER NMPB, JU attended the 74th Finance Clinic, organized by the District Industrial Centre, Silpa Sadan, Kolkata, as an expert, on 20th June, 2025. During the event, he interacted with officials from the SME Loan Department of the State Bank of India (SBI) and evaluated a project proposal submitted by the

Agewell Foundation, an organization engaged in elder care. The proposal envisaged the establishment of a 'Transition Care Centre' in Kolkata based on Ayurvedic principles.

8. A meeting was held on 21st June, 2025 with Mr. Golam Gaus, Secretary of the HIM Institute of Human Resource Development, Murshidabad, West Bengal, to discuss the development of marketing strategies for Ashwagandha cultivation. The Institute supports over 800 farmers cultivating Ashwagandha across approximately 500 bighas of land, with an annual production of nearly 200 metric tonnes of dried roots in the district. Discussions focused on establishing quality assessment protocols and identifying strategies to enhance market returns for farmers. Dr. Soumyajit Biswas, Project Manager, and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER NMPB, JU, attended the meeting on behalf of RCFC-ER.
9. On 23rd June, 2025, a meeting was held with Mr. Vishnu Kant, Deputy Director of Foreign Trade, Director General of Foreign Trade (DGFT), Ministry of Commerce and Industry, Govt. of India, Kolkata to explore collaborative initiatives between DGFT and RCFC-ER aimed at supporting entrepreneurs, medicinal plant cultivators, and FPOs/FPCs in export promotion and regulatory compliance. RCFC-ER was represented by Mr. Sudipto Ghosh, Assistant Project Manager (Marketing) and Mr. Prasun Mukherjee, Project Consultant (Marketing), RCFC-ER NMPB, JU.
10. On 29th June, 2025, RCFC-ER organized a meeting in Madhupur, Deoghar, with Mr. Kumar Ranjan of Chetna Vikas Sanstha (NGO), Mr. Ghanshyam of Samvad Sanstha (NGO), Mr. Ashish Somani of Karbokissan, Mukund Agritech & Research Pvt. Ltd., Bengaluru, and Mr. Saurabh Keshari, a medicinal plant trader from Deoghar. The discussion centered on the commercial cultivation of medicinal plants—particularly Kalmegh, Tulsi, and Kaunch—for the upcoming Kharif season. Samvad Sanstha has established 20 herbal gardens across 16 districts of Jharkhand and is currently working with over 400 farmers. The organization aims to further expand and promote medicinal plant cultivation as a sustainable livelihood opportunity for rural farmers.
11. RCFC-ER organized a meeting on 30th June, 2025 at Deoghar, Jharkhand with the farmers associated with the Jiva Project in Tulitand, Saraiyahat, Dumka. Participants were given an overview of the cultivation practices for Nirgundi, Tulsi, and Kaunch, with emphasis on their suitability to local agro-climatic conditions and potential as income-generating crops.
12. A meeting was held on 9th July 2025 with Mr. Satyajit Chakraborty, Lecturer in Humanities of 'The Calcutta Technical School, Kolkata to organize an 'Entrepreneurship Awareness Program in the Medicinal Plant Sector' combining various polytechnic colleges in West Bengal, with a focus to introduce students to the vast potential of India's medicinal plant resources and the opportunities for sustainable and value-driven business ventures within this domain. The meeting was attended by Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, Dr. Soumyajit Biswas, Poject Manager, and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), on behalf of RCFC-ER, NMPB, JU,
13. A Meeting was held with Shri Biplab Sarkar, Deputy Director, Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce & Industry, GoI, on 10th July, 2025 regarding collection of Exim data and international trade statistics of medicinal plants and its products. The meeting was attended by Mr. Sudipto Ghosh, Assistant Project Manager (Marketing) and Mr. Prasun Mukherjee, Project Consultant (Marketing) on behalf of RCFC-ER NMPB, JU
14. On 12th July 2025, RCFC-ER organized a meeting at the Krishi Vigyan Kendra, Deoghar, with

representatives of Farmers Producer Companies (FPOs) from the district, under the chairmanship of Shri Krishna Prasad, Secretary, Medicinal and Aromatic Plants Producer Association, Patna. The programme focused on detailed discussions regarding the cultivation of Tulsi, Kalmegh, and Kaunch during the Kharif season. During the session, Mr. Rajan Kumar Ojha, Principal In-charge Scientist of the Krishi Vigyan Kendra, provided insights into locally available commercially viable medicinal plants. Mr. Kumar Ranjan of Chetna Vikas Sansthan elaborated on the advantages of medicinal plant cultivation as a sustainable alternative to conventional farming practices. Mr. Ashish Somani of Karbo Kisaan assured technical support for cultivation practices as well as market linkage for the produce of all three crops. Shri Krishna Prasad emphasized that, considering the prevailing agro-climatic conditions, organic medicinal plant farming presents a promising opportunity for farmers. A total of 25 representatives from various FPOs participated in the programme.

15. On 14th July, 2025, a meeting was held with Dr. Sobhan Kumar Senapati, an Ayurvedic practitioner from Kultali, South 24 Parganas, to explore the prospects of commercial cultivation of medicinal plants in his village and adjoining areas. Dr. Soumyajit Biswas, Project Manager, and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), represented RCFC-ER, NMPB, Jadavpur University during the discussion.
16. A meeting was conducted on 18th July, 2025 with Mr. Sujit Sen and Mr. Jaydeep Sen of Eco-Agro Company for discussing the cultivation and collection of medicinal plants in and around Dumka. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), represented RCFC-ER, NMPB, Jadavpur University at the meeting.
17. A meeting was held on 29th July, 2025 with Shri Raju Das, Additional Principal Chief Conservator of Forests (Finance), Directorate of Forests, Government of West Bengal, to resolve the pending Utilization Certificates (UCs) related to various projects sanctioned by NMPB to the Forest Department, Government of West Bengal. The meeting was attended by Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, and Dr. Soumyajit Biswas, Project Manager of RCFC-ER, NMPB, Jadavpur University.
18. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, Jadavpur University, attended a 'Finance Clinic' organized by the District Industries Centre on 31st July, 2025 as a Marketing Expert. During the session, he appraised various project proposals related to medicinal plants and their processing.
19. As per the directive of NMPB, a virtual meeting titled “Industry Consultation on Mapping of Cultivated Medicinal Plants” was attended on 5th August, 2025. The programme was organized by AYUSHEXCIL and chaired by Dr. Kousthubha Upadhyaya, Advisor (Ay.), Ministry of AYUSH. The primary objective was to engage with industry stakeholders on mapping cultivated medicinal plants across various Biodiversity Management Committees (BMCs) nationwide. Key discussions focused on aligning cultivation practices with market demand, enhancing supply chain efficiency through improved traceability, and promoting sustainable sourcing. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), and Mr. Prasun Mukherjee Project Consultant (Marketing), represented RCFC-ER, NMPB, JU at the meeting.
20. A meeting was held on 12th August 2025 with Mr. Tapas Kumar Pal and Mr. Subrata Goroi from Bagnan, Howrah, to discuss the cultivation of White and Red Sandalwood along with Pipli and Black Pepper as intercrops. The meeting was attended by Dr. Soumyajit Biswas, Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), Ms. Priyanka Roy, and Mr. Prasun Mukherjee on behalf of RCFC-ER, NMPB, Jadavpur University.

21. As per the directives from NMPB a section of Ministry of AYUSH, Govt. of India, New Delhi - Dr. Soumyajit Biswas, Mr. Sudipto Ghosh, Ms. Priyanka Roy & Mr. Prasun Mukherjee of RCFC-ER, JU participated virtually in the "Sensitisation and Capacity Building Programme on the National Programme for Organic Production (NPOPP) 2024", on 9th September 2025 hosted by APEDA, Ministry of Commerce & Industry, Govt. of India, New Delhi. The programme focused on enhancing understanding of organic certification standards, compliance procedures, and best practices under the NPOP framework, specifically within the medicinal plants sector.
22. Dr. Soumyajit Biswas, Project Manager & Ms. Priyanka Roy, Project Consultant (Technical) on behalf RCFC-ER, NMPB, JU, attended the hybrid meeting organized by NMPB on 10th September, 2025, for sharing a detailed outline of potential activities to be conducted, for celebrations of 10th Ayurveda Day, 2025.
23. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, Jadavpur University, participated in an "Interactive Session on Investment Opportunities in Madhya Pradesh" on 10th September, 2025, chaired by the Hon'ble Chief Minister of Madhya Pradesh, Dr. Mohan Yadav. The session was attended by various stakeholders from the medicinal plants sector.
24. Mr. Sudipto Ghosh, representing RCFC-ER as a Marketing Expert, attended a "Finance Clinic" organized by the District Industries Centre on 16th September, 2025. During the session, he evaluated and appraised several project proposals related to medicinal plants and their processing.
25. A meeting was held on 28th October, 2025 with Mr. Kartik Biswas, Managing Director, Uttarayan Financial Services Pvt. Ltd., to explore potential financial support mechanisms through Non-Banking Financial Companies (NBFCs) for individual farmers and organizations engaged in medicinal plant cultivation and trade. Mr. Biswas expressed his intent to explore suitable financial products through their existing channels. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing) attended the meeting on behalf of RCFC-ER, NMPB, JU.
26. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), attended the 77th Finance Clinic organized by the District Industries Centre (DIC), Kolkata, on 27th November, 2025 as a Resource Person, representing RCFC-ER, NMPB, JU.
27. A meeting was held on 1st December, 2025 with Dr. Neha Verma of Jan Vikash Sanstha and Mr. Virendar Kumar of All India Ruby Social Service Sanstha to discuss RCFC-ER's technical support for the planning and establishment of herbal gardens in approximately 20 schools across Jharkhand. Dr. Soumyajit Biswas, Project Manager, and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), represented RCFC-ER at the meeting.
28. On 2nd December, 2025, a meeting was held with Mr. Gopal Chandra Mondal, a retired government officer, to provide technical guidance for establishing a personal medicinal plant garden in Nadia, including the cultivation of sandalwood along with shade-loving medicinal species. The meeting was attended by Dr. Soumyajit Biswas, Project Manager, and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), on behalf of RCFC-ER, NMPB, JU.
29. Meetings were held on 14th January, 2026 and 31st January, 2026 with Shri Rajesh Kumar, IFS, Principal Chief Conservator of Forests (Research) and Shri S. Sherpa, IFS, Conservator of Forests (Research), Directorate of Forests, Government of West Bengal. The discussions focused on resolving pending Utilization Certificates (UCs) for the projects sanctioned by NMPB to the Forest Department, Government of West Bengal, as well as facilitating the

submission of fresh proposals under the Central Sector Scheme (CSS) for 'Conservation, Development and Sustainable Management of Medicinal Plants' of NMPB. Dr. Soumyajit Biswas, Project Manager, represented RCFC-ER in both the meetings.

30. In accordance with the directives of National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India, Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, and Dr. Soumyajit Biswas, Project Manager, RCFC-ER, NMPB, JU, attended a region-wise physical review meeting held at NMPB, Ministry of AYUSH, New Delhi, on 21st January, 2026 at New Delhi. The meeting aimed at the resolution of pending Utilization Certificates, fund release bottlenecks, and implementation-related issues.
31. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, JU, attended the MSME Finance Clinic conducted in Kolkata on 28th January, 2026 as a Resource Person.
32. A meeting was held with Mr. Taskin Habib of NQT Oil, Ontario, Canada, on 31st January, 2026 to discuss the procurement of Ayurvedic skincare and haircare products from India for export to international markets. Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, JU, attended the meeting on behalf of RCFC-ER.
33. A meeting was conducted with Mr. Jayanta Kr. Roy of West Bengal State Electricity Transmission Company Limited (WBSETCL) on 9th February, 2026 regarding plantation of medicinal plants on his 1 bigha of land at Chuchura, West Bengal. RCFC-ER provided guidance on the economic feasibility and success potential of various tree species such as Chandan, Arjun, Neem, Amla, and Moringa. The meeting was attended by Mr. Sudipto Ghosh on behalf of RCFC-ER, NMPB, JU.
34. A meeting was held on 9th February, 2026 with Dr. Sobhan Kr. Senapati, an Ayurvedic practitioner, regarding ashwagandha cultivation on his personal land in the Sundarban region. He was advised to undertake a pilot trial before proceeding with large-scale cultivation. The meeting was attended by Dr. Soumyajit Biswas, Project Manager and Mr. Sudipto Ghosh on behalf of RCFC-ER, NMPB, JU.
35. Prof. Asis Mazumdar, PI cum Nodal Coordinator and Dr. Soumyajit Biswas, Project Manager, RCFC-ER, NMPB, JU, attended the "Chintan Shivir for Medicinal Plants – A Stakeholder Meet on New Trends in Medicinal Plants, Strengthening Cultivation, Conservation, Marketing Linkages and Sustainable Utilization," organized by National Medicinal Plants Board, Ministry of AYUSH, Govt. of India, on 11th February, 2026 at Vigyan Bhawan, New Delhi. RCFC-ER presented its work over the past two years in a dedicated session, which received high appreciation. RCFC-ER was conferred the Excellence Award (Gold) for Best Performing Regional-cum-Facilitation Centre in recognition of its outstanding performance and contributions to the promotion and development of the medicinal plants sector.
36. A meeting was held on 17th February, 2026 with Vaidya Santanu Budiya and Pandit Harish Chandra Behera to deliberate on various aspects and nuances of tribal medicine. The meeting was attended by Mr. Sudipto Ghosh, Mr. Prasun Mukherjee, and Ms. Priyanka Roy on behalf of RCFC-ER, NMPB, JU.
37. A meeting was held with Mr. Surajit Paul, lecturer of South Calcutta Polytechnic, Baruipur, on 5th March, 2026 regarding the feasibility of Red Sandalwood plantation on his personal land in Purba Medinipur. Mr. Sudipto Ghosh attended the meeting on behalf of RCFC-ER, NMPB, JU.
38. Dr. Shampa Purakayastha, Assistant Professor at Centurion University, visited RCFC-ER on 5th March, 2026 to gain insights into the Medicinal Plants Business Centre scheme of National Medicinal Plants Board. The meeting was attended by Mr. Sudipto Ghosh on behalf of RCFC-ER, NMPB, JU.

39. A meeting was held with Mr. Goutam Das, former Senior Vice President of Everest Industries and former Director of Everest Building Products, on 17th March, 2026 to explore the prospects of cultivating medicinal plants in West Bengal and their potential integration into construction-related applications. Mr. Sudipto Ghosh attended the meeting on behalf of RCFC-ER, NMPB, JU.
40. A meeting was held with Mr. Sumit Kr. Pariwal of Organic Affairs, Ranchi, on 17th March, 2026 to discuss his organization's activities in the tribal belt of Netarhat, Jharkhand. He expressed interest in promoting the cultivation and marketing of medicinal plants such as Shatavari, Gokhru, Brahmi, and Moringa. The meeting was attended by Dr. Soumyajit Biswas, Project Manager and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing) RCFC-ER, NMPB, JU.
41. A meeting was facilitated by RCFC-ER on 24th March 2026 between Smt. Seema Kumari Udaipuri, Director AYUSH, Jhakhand and Dr. Abdul Qayum, IFS, Director (Technical) cum Deputy Chief Executive Officer, National Medicinal Plants Board, Ministry of AYUSH, Govt. of India to discuss the activities and functioning of the Jharkhand State Medicinal Plants Board. The meeting was attended by Dr. Soumyajit Biswas, Project Manager and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing) on behalf of RCFC-ER, NMPB, JU.

Linkages

42. Mr. Karnadhar Das of Mayapur was linked with the NEPO Agro FPO Multipurpose Co-operative Society Ltd. on 5th April, 2025. Mr. Das, a cattle feed manufacturer, expressed interest in cultivating medicinal plants on his land in Mayapur under the guidance of RCFC-ER, with support from the NEPO group. The meeting was attended by Mr. Abhijit Ghosh on behalf of NEPO, and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), on behalf of RCFC-ER, NMPB, JU.
43. M/s. SR was linked with NEPO Agro FPO Multipurpose Co-operative Society Ltd. on 16th May, 2025 for the cultivation and extraction of medicinal plants and their essential oils. Under this arrangement, M/s. SR will primarily oversee investment and marketing activities, while NEPO will manage cultivation operations under the technical guidance and supervision of RCFC-ER.
44. Dr. Soumyajit Biswas, Project Manager, and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, JU, facilitated a linkage between Mr. Jayanta Brahma, an agriculture enthusiast and NEPO Agro FPO Multipurpose Co-operative Society Ltd., Nadia, on 5th June, 2025 for the cultivation of Red Sandalwood on his land near Bagdogra, Siliguri.
45. Dr. Atanu Ojha, DGM – PC, QC & RD at Arcelor Mittal Plant, Paradeep, Odisha, was linked with Janus Life Sciences, Kolkata, on 13th June, 2025 for specialized field training and technical guidance on the cultivation and extraction of Stevia in Balasore. Opportunities related to other important medicinal and aromatic plants (MAPs), including Lemongrass, Nagarmotha, and Ashwagandha, were also explored.
46. On behalf of RCFC-ER, Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), and Mr. Prasun Mukherjee, Project Consultant (Marketing), facilitated a linkage between Mr. Samik Banerjee, Assistant Professor, Department of Civil Engineering at the Calcutta Institute of Engineering and Management, Kolkata, and Janus Life Sciences, Kolkata. The objective of the linkage was to establish a small-scale manufacturing unit for medicinal plant-based products at

Chandrahut Village in Birbhum District, West Bengal. Mr. Banerjee aims to develop a cluster involving local entrepreneurs engaged in producing a diverse range of marketable products derived from locally available and cultivable medicinal plants.

47. Mr. Biswajyoti Gupta, owner of Jagaddatri Data Analytics & Engineering Pvt. Ltd., Kolkata, was linked with RCFC-ER and sought technical expertise on the cultivation of Ekangi in Burdwan and Eucalyptus oil extraction in Kharagpur. He was advised to prepare and submit a detailed project plan and report to facilitate the provision of technical guidance. The meeting was attended by Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), on behalf of RCFC-ER, NMPB, JU.
48. Mr. Tapas Kumar Pal and Mr. Subrata Goroi from Bagnan, Howrah, were connected with NEPO Agro FPO Multipurpose Co-operative Society Ltd., Nadia, for the procurement of Sandalwood saplings. They expressed interest in undertaking plantation activities using these saplings and sought technical support from RCFC-ER to ensure successful implementation.
49. Mr. Biswajyoti Gupta, owner of Jagaddatri Data Analytics & Engineering Pvt. Ltd., Kolkata, was further associated with NEPO Agro FPO Multipurpose Co-operative Society Ltd., Nadia, West Bengal, to explore the utilization of medicinal plants and agricultural waste for biogas production. He intends to submit a detailed project report to NEPO after assessing feasibility, opportunities, and cost implications. The meeting was attended by Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), on behalf of RCFC-ER, NMPB, JU.
50. On 28th October, 2025, Destiny Finco Pvt. Ltd. was linked with Madhyagram Kalpataru Society by RCFC-ER, NMPB, JU. Destiny Finco Pvt. Ltd. agreed to review the proposals submitted by the Kalpataru Society for potential financial support towards their large scale medicinal plants cultivation initiatives.
51. Mr. Nirmal Halder, an aspiring entrepreneur from Jugberia, Kolkata, approached RCFC-ER on 29th October, 2025 for quality testing of an herbal face wash developed by him. He was provided with detailed information and procedures for approaching accredited quality testing laboratories in Kolkata.
52. Mr. Ramesh Pillai of Sriniwas Herbs Pvt. Ltd., Kolkata was linked with Mr. Rathin Biswas, General Manager, District Industries Centre (DIC), Kolkata, under the Directorate of MSME, Government of West Bengal, on 19th November, 2025. The objective was to explore opportunities for government funding support and subsidy schemes for establishing a medicinal plants processing unit along with a godown/warehouse facility.
53. Mr. Somenath Dey, a resident of Bangaon, North 24 Parganas, West Bengal, was provided with technical guidance on the cultivation of Red Sandalwood, including recommended agronomic practices on his land. He was also informed about the statutory and legal compliances related to its cultivation, harvesting, and transportation, along with details of government and private nurseries for procuring planting materials.
54. On 5th December, 2025, Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, JU, attended an ICC seminar on behalf of RCFC-ER. During the event, institutional linkages were established with Ms. Viji John, Director, Aarushya Foundation; Dr. Biswajit Roy Chowdhury, Founder Chairperson, SAIARD Research Group; and Dr. Udita Ghosh Sarkar, Expert, HCL Foundation.
55. Mr. Tushar Samanta, a progressive farmer from Hathgovindapur, Burdwan, West Bengal, was facilitated for the procurement of Red Sandalwood saplings on 16th January, 2026.

56. A meeting was held on 19th February, 2026 with Dr. J. C. Das and his wife, owners of 4M Diagnostic & Healthcare, who expressed interest in developing Ayurvedic nutraceuticals for brain health and longevity. A linkage was established with Janus Lifesciences for the development of these products under the technical support of RCFC-ER. The meeting was attended by Dr. Soumyajit Biswas, Project Manager, and Mr. Sudipto Ghosh, Assistant Project Manager (Marketing), RCFC-ER, NMPB, JU.

57. RCFC-ER facilitated the linkage between Mr. Biswa Jyoti Gupta, Proprietor of Jagatdhatri Data Analytics & Engineering Pvt. Ltd., Kolkata, and Mr. Pinak Dan of Kalpataru Welfare Society. The collaboration aims to promote the cultivation of medicinal plants such as Kalmegh, Brahmi, and Ekangi on Mr. Gupta's private land near Kharagpur, West Bengal. Kalpataru will provide assistance to Jagatdhatri for the cultivation under the technical guidance of RCFC-ER.

SECTION 07

SUCCESS STORIES

Success Story 1

Bridging the Gap: How Mr. Abhay Somani Connected Farms, Labs, and Health-Conscious Homes

Diabetes — a word feared by many — has been rapidly spreading across all age groups and social segments in India. This widespread health crisis has earned the country the unfortunate distinction of being known as *"the diabetes capital of the world,"* with over 100 million people diagnosed with some form of the disease. The financial burden of long-term treatment is significant, and in most cases, the condition remains largely irreversible despite ongoing medical intervention.

Mr. Abhay Somani, a chartered accountant by training has spent his early years of career in corporate financing; mentoring many corporates in mergers, acquisitions, strategic planning and portfolio management. Being very health conscious himself, he was always interested in emerging areas of health and lifestyle sector. He always aspired to be a component.

Mr. Somani's aspiration to build a business in the health and lifestyle sector stems from a deep desire to make a meaningful impact on people's lives. He believes that true success lies in creating value — not just in profits, but in empowering individuals to lead healthier, more fulfilling lives. Through innovative products, honest communication, and a strong focus on well-being, he aimed to bridge the gap between preventive health and everyday living. At the same time, he saw this venture as a sustainable path to commercial success, where doing good and doing well go hand in hand. His goal was to create a brand that stands for trust, transformation, and long-term growth — both for the people we serve and the business we build.

Mr. Somani recognized Stevia as a potent natural product for India due to its immense potential to combat the rising tide of diabetes and lifestyle disorders. Its zero-calorie sweetness offered a healthier, plant-based alternative to sugar, perfectly suited for India's growing health-conscious population. Thus, in 2011, Janus Life Sciences Life Science with Mr. Somani at the helm of it was born, which has a sole objective of doing R&D on Production and Formulation Technology that whether Stevia based sweetening formulations and manufacture products are suitable for personal uses and industrial applications.

Mr. Somani's journey toward building a business with Stevia was driven by a powerful vision — to offer a healthier, natural alternative to sugar in a world increasingly burdened by lifestyle diseases like diabetes and obesity. Witnessing the growing health crisis around him, he felt a deep urge to be part of the solution. Stevia, with its zero-calorie sweetness and plant-based origins, resonated with his belief that wellness should be rooted in nature. But more than just a product, Mr. Somani saw Stevia as a catalyst — a way to spark conversations about conscious living, to support farmers through sustainable cultivation, and to create a business that delivers both purpose and profit. His mission was clear: to make healthy choices accessible, affordable, and enjoyable for all.

One of the key challenges in promoting Stevia as a commercially viable and profitable crop was the difficulty in convincing farmers to adopt it. This became a major bottleneck in his efforts to develop and strengthen the entire Stevia value chain. Farmer interest was minimal—largely due to past negative experiences where some had entered into buyback agreements with untrustworthy companies, only to suffer significant financial losses. Word of these failures spread quickly, leading to widespread skepticism and resistance.

Extensive research at the laboratory of Janus Life Sciences Life Sciences, revealed the root of the problem: earlier plantations had used saplings with poor steviol glycoside content, making them unsuitable for commercial cultivation. This insight sparked a rigorous search for high-quality Stevia varieties suited to Indian agro-climatic conditions.

In 2019, the Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India, Jadavpur University, Kolkata, recognized the technical capabilities of Janus Life Sciences Life Sciences and entrusted it with two important research projects:

1. *Identification of High-Yielding Stevia Cultivars Suitable for the Gangetic Alluvial Regions of West Bengal*, and
2. *Quality Planting Material Production of Stevia rebaudiana through Polyploidy Induction.*

These projects played a pivotal role in identifying four high-yielding Stevia varieties well-suited for cultivation in West Bengal. As part of the research, Janus Life Sciences conducted a series of laboratory experiments and field trials in collaboration with Ramakrishna Mission Ashram, Sargachhi, West Bengal, using 11 different varieties sourced from diverse origins. Several trial varieties were obtained from overseas breeders in seed form, and a rigorous multi-generational, phenotype-marker-based genetic selection process was undertaken to develop superior lines.

Ultimately, four high-yielding and promising Stevia varieties were identified. These exhibited a total steviol glycoside content ranging from 12% to 14%, with Rebaudioside A, accounting for approximately 70% of the total glycosides. In terms of both biomass and steviol glycoside yield potential, these varieties were on par with internationally recognized high-yielding cultivars. The selected varieties were formally handed over to RCFC-ER for preservation in their nursery and germplasm bank at Jadavpur University.

Mr. Somani then shifted his focus to the extraction of steviol glycosides. The technical team at Janus Life Sciences successfully developed a small-scale extraction technology tailored for steviol glycosides. This system is capable of operating sustainably using the dry leaf yield from a 10-hectare plantation. A laboratory scale prototype of the extraction unit was built and operated successfully. The development of this small scale extraction system represents a significant step forward, as it has the potential to overcome the economy-of-scale barrier that often hinders commercial stevia extraction.

Mr. Somani takes pride in the fact that Janus Life Sciences was among the pioneering companies to introduce steviol glycoside-based standalone table top sweeteners in both sachet and liquid drop forms. Traditional steviol glycoside sweeteners often fail to replicate the taste of sugar accurately and tend to leave an undesirable aftertaste. Determined to overcome this challenge, Mr. Somani inspired the technical team of Janus Life Sciences to undertake rigorous research aimed at developing aftertaste-free formulations—while preserving the natural characteristic and avoiding synthetic ingredients. Today, Janus Life Sciences' sweetener products are widely recognized for their exceptional taste profile and have earned strong appreciation from consumers.

Under Mr. Somani's leadership, Janus Life Sciences achieved a major breakthrough in developing a range of steviol glycoside-based pre-mixes designed for a variety of food applications. These advanced formulations accurately mimic the taste of sugar while preserving key sensory attributes such as texture, volume, mouthfeel, and appearance—areas where most commercial stevia-based sweeteners fall short. By successfully addressing these challenges, Janus Life Sciences established itself as a frontrunner in the sweetener pre-mix segment. This innovation not only set a new benchmark in the industry but also significantly contributed to the company's rapidly growing market share in this category.

The long-term outlook for the stevia products is both promising and purpose-driven. With growing awareness around lifestyle diseases and an increasing demand for natural, low-calorie alternatives, products developed and commercialized by the team led by Mr. Somani are well-positioned to lead the shift toward healthier consumption. Backed by strong R&D, consumer trust, and a commitment to clean-label, aftertaste-free formulations, the initiative aims to expand its footprint across domestic and international markets. Its focus on innovation, sustainability, and accessibility ensures that the stevia-based sweetening platform will continue to play a vital role in shaping the future of health-conscious sweetening solutions.

Mr. Abhay Somani's journey with Janus Life Sciences is a testament to how purpose-driven innovation can reshape an entire industry. What began as a personal quest to address a growing health crisis evolved into a pioneering enterprise that successfully bridged the gap between natural wellness and scientific precision. Through relentless research, ethical entrepreneurship, and a deep commitment to public health, Janus Life Sciences has not only created a trusted brand but also built a sustainable ecosystem—from farm to formulation. In a country grappling with lifestyle diseases like diabetes, Janus Life Sciences, offers more than just sweeteners—it offers hope, empowerment, and a pathway to healthier living. With a strong foundation and a clear vision, Mr. Somani continues to inspire a future where doing good and doing well go hand in hand.

Success Story 2

Advancing Community-Based Afforestation in North Bengal: The Success Story of Shri Benoy Das

Shri Benoy Das, fondly known in his community as “Sabuj Benoy” (Green Benoy), is a dedicated environmental conservationist residing in Cooch Behar, North Bengal. Over the past two decades, he has quietly yet consistently transformed the landscape through community-based afforestation, with a firm belief that trees can simultaneously restore ecology, support livelihoods, and nourish the human spirit.

Till date, he has single-handedly planted more than 13,500 native trees and developed five vibrant micro-forests, each designed to serve as a living resource for people, birds, and animals alike. What began as urban and peri-urban plantation work has now evolved into a larger and more ambitious vision. He is presently working towards creating continuous green corridors along the riverbanks of North Bengal, envisaging dense, native forests that will act as natural shields against soil erosion, rising temperatures, and the adverse impacts of climate change. His efforts are not limited to mere plantations; he also monitors the careful nurturing and protection, of these saplings to ensure high survival rates. Through this sustained approach, he is steadily converting vulnerable riverine stretches into resilient ecological buffers. A defining element of his work is the concept he describes as the “Economy of Shade”. In this model, a single tree is seen not only as an ecological


asset but also as a catalyst for economic and social wellbeing. Large-canopy trees like Banyan and Peepal become natural workplaces and community spaces—offering shelter to a roadside cobbler, a comfortable waiting area for lawyers and clients near the court premises, or a resting place for passers-by and street vendors. By thoughtfully selecting plantation sites in and around public spaces, he ensures that each tree contributes to the dignity, comfort, and productivity of the working class and the urban poor.

Shri Benoy Das has emerged as a remarkable grassroots environmentalist and herbal entrepreneur in Cooch Behar, West Bengal. Through his dedication and personal initiative, he has established three extensive herbal gardens—Panchabati Herbal Garden (20 bigha), Banalata Batika (16 bigha), and Rajbari Herbal Garden (0.5 bigha)—collectively cultivating more than 100 species of medicinal plants. These include Wild Ginger (*Zingiber capitatum*), Amla (*Phyllanthus emblica*), Haritaki (*Terminalia chebula*), Bahera (*Terminalia bellirica*), Neem (*Azadirachta indica*), Bael (*Aegle marmelos*), Ashoka (*Saraca asoca*), Tejpatta (*Cinnamomum tamala*), Lemongrass (*Cymbopogon citratus*), Curry Leaf (*Murraya koenigii*), Ghritakumari (*Aloe vera*), Tulsi (*Ocimum tenuiflorum*), Giloy (*Tinospora cordifolia*), Pathor Kuchi (*Kalanchoe pinnata*), Genda/Pot Marigold (*Calendula officinalis*), Hadjod (*Cissus quadrangularis*), Vishalyakarani (*Tridax procumbens*), Basak (*Justicia adhatoda*), Nishindha (*Vitex negundo*), Black Pepper (*Piper nigrum*), Ekangi (*Kaempferia galanga*), Ginger (*Zingiber officinalis*), and Turmeric (*Curcuma longa*), among many others.

His journey is not merely about cultivation but about conservation, awareness generation, and community inspiration. Starting with limited resources, Shri Benoy Das invested his own savings in procuring saplings, preparing land, and ensuring long-term care of the plants. Over the years, his herbal gardens have become living repositories of traditional medicinal knowledge, promoting sustainable cultivation practices and encouraging local communities to recognize the value of indigenous medicinal flora. His initiatives have also created livelihood opportunities and strengthened environmental consciousness in the region.

In recognition of his unwavering commitment to environmental protection and afforestation, Shri Benoy Das was recently highlighted by the Hon'ble Prime Minister, Narendra Modi, in the 130th episode of Mann Ki Baat. During the broadcast, the Prime Minister lauded Shri Das for his selfless and sustained efforts to make Cooch Behar greener by planting thousands of trees and nurturing roadside greenery, often bearing the expenses of saplings, planting, and maintenance himself.

'Green Benoy' in *Mann ki Baat*

MAIN UDDIN CHISTI

Cooch Behar: Cooch Behar's Green Benoy found mention in the Prime Minister's *Mann ki Baat* addressed to the nation on Sunday.

Benoy Das, 54, with over two decades of afforestation work behind him, lives in Cooch Behar town.

"....we often think of big plans, large campaigns and major organisations, but often change begins in a very simple way.... the effort of Benoy Das from Cooch Behar in West Bengal is one such shining example," said Prime Minister Narendra Modi.

Green activist Benoy Das.
Picture by Main Uddin Chisti

"For several years now, he had been working single-handedly to make his district greener. Benoy Das ji has planted thousands of trees, many times, from purchasing saplings to planting them and taking care of them, he has borne the entire expenses himself wherever required he collaborated...," Modi added.

Das said he was overwhelmed.

"When the Prime Minister mentions a small-town man like me from Cooch Behar, it is a very big achievement," Das said.

A resident of Hazra Para, Das holds a postgraduate degree in Sanskrit and works with the Archaeological Survey of India at the Cooch Behar Palace, where he has been posted since 2010. Yet his identity has long transcended his professional role.

For over two decades, Das has been planting trees entirely on his own initiative and at his own expense. So far, more than 13,500 saplings planted by him have taken root across the town. Beyond individual trees, he has also helped create five small forests in Cooch Behar by scattering seeds across riverbanks and abandoned land — efforts that together account for nearly 30,000 trees.

His daily routine begins at 5am and continues till 9am, hours he dedicates exclusively to his green mission. Around four months of the year are spent planting saplings, while the remaining eight go into watering, protecting, fencing, and nurturing the trees.

In addition to his plantation initiatives, Shri Benoy Das is known for operating what is regarded as West Bengal's first "Tree Ambulance" - a mobile service for rescuing distressed trees and supporting their transplantation and care. This unique initiative reflects his philosophy of "Sadhana" (disciplined practice). For him, planting a sapling is only the beginning; he considers each tree akin to a child, requiring regular attention, protection, and nurturing until it is strong and self-sustaining.

This deep sense of responsibility has contributed to exceptionally high survival rates in his plantations. For his tireless efforts, Shri Binoy Das has received the *National Environment Youth Award 2022* for grassroots ecological leadership. He has received recognition by the Forest Department; Government of West Bengal during the Banamahotsav 2024 for the Best Garden in the Afforestation Programme. He was also honoured with the Ram Sharad Kothari Pratibha Samman in 2025. Over the years, Shri Benoy Das has emerged as a respected figure in the field of grassroots environmental stewardship in North Bengal. His work beautifully weaves together afforestation, biodiversity restoration, livelihood support, cultural revival, and spiritual enrichment. His journey stands as an inspiring example of how one individual's sustained effort, sensitivity, and conviction can gradually transform not just landscapes, but also lives and mindsets.

Success Story 3

Empowering Communities Through Traditional Healing: The Success Story of Vaidya Santanu Kumar Budhia

Vaidya Santanu Kumar Budhia was born in Bhatpadar village near Subalaya, formerly part of undivided Balangir district (presently Sonepur district), and grew up in Karlapita village, Balangir district, Odisha, surrounded in an environment deeply enriched with traditional healing wisdom. His father, late Ghasiram Budhia, was a highly respected Kaviraj with profound expertise in both Ayurvedic and Homeopathic systems of medicine, while his grandfather, Late Narad Budhia, served as a royal physician known for his dedication and service to the community. On his maternal side, his grandfather, Late Krushna Chandra Bhoi, was also a renowned traditional healer, well known for his deep knowledge of rare medicinal plants and his successful treatment of complex conditions such as epilepsy and Dhatukshaya.

From his childhood, Vaidya Budhia was naturally drawn to the healing traditions practiced at home. Under the careful guidance of his father, he learned the nuances of disease diagnosis and

treatment, observing hundreds of patients and their gradual recovery. Simultaneously, his mother, Smt. Tapaswini Budhia, patiently trained him in the art of medicine preparation, instilling in him the importance of precision, purity, and sincerity in every formulation. Over the years, this intimate blend of familial mentorship and experience shaped him into a compassionate and confident traditional healer, firmly grounded in both inherited wisdom and practical knowledge.

For the last 26 years, he has been serving the patients in Patnagarh with unwavering commitment and humility. He delivers daily patient care through "Shri Narad Ayurved" in Patnagarh—a center dedicated to traditional medicine and forest-based research—serving individuals from diverse socio-economic backgrounds and ensuring that quality healthcare remains accessible and affordable to all. His formulations such as Pashanabhedi for kidney stones, Amlapitta Churna for gastric disorders, and Sarpgandhadi Bati for hypertension and associated ailments have earned widespread appreciation for their effectiveness and minimal side effects. Many patients, after not finding relief through other means, have experienced significant improvement under his care, which has further strengthened their faith in traditional medicine.

Beyond individual patient care, Vaidya Budhia has devoted himself to the preservation, promotion, and ethical use of traditional medicinal knowledge. He actively organizes and participates in workshops, field trainings, and awareness programmes aimed at identifying, conserving, and documenting medicinal plant resources. His work holds special emphasis on rare and threatened species, with a focus on their sustainable use so that future generations may also benefit from them. His efforts reflect a gentle yet firm conviction that traditional knowledge, when nurtured and respected, can coexist fruitfully with modern scientific approaches.

In recognition of his contributions to environmental protection and nature conservation, he has been honoured with the "Prakritibandhu Award" by the Government of Odisha. This prestigious recognition highlights not only his medical service but also his commitment to safeguarding forests, biodiversity, and local ecosystems. As an advisor to the Gandhamardan Ayurvedic Traditional Healer's Association, he guides fellow traditional healers in responsible collection practices, scientific documentation, and the protection of sacred landscapes. He is actively involved in Gandhamardan protection initiatives, sensitizing local communities and youth about the

importance of preserving the hills, forests, and the rich heritage of medicinal plants associated with them.

Vaidya Budhia also works closely with the Forest Department and various Ayurvedic colleges to promote collaborative research and documentation of medicinal plants. Through joint surveys, educational interactions, and knowledge-sharing sessions, he helps bridge the gap between traditional healers and academic institutions. His widely used kidney stone formulation, Pashanabhedi, has attracted interest from the scientific community; the Department of Biotechnology and Bioinformatics of Sambalpur University has conducted research on this medicine and published a research paper validating its potential. This respectful convergence of traditional wisdom and modern science has further encouraged him to continue innovating while remaining rooted in his ancestral values.

Today, Vaidya Santanu Kumar Budhia stands as an inspiring example of how devotion, humility, and perseverance can transform inherited knowledge into a powerful instrument of public service. His journey—from a child learning remedies at home to an acclaimed traditional healer, environmental advocate, and mentor—speaks of quiet determination and deep love for nature and humanity. With his gentle conduct, soft-spoken guidance, and tireless service, he continues to touch countless lives, nurturing not only the health of individuals but also the living traditions and natural heritage of Odisha.

Success Story 4

Empowering Agriculture Through Medicinal Plants: The Inspiring Journey of Shri Shambhu Sharan Bhartiya

Shri Shambhu Sharan Bhartiya hails from Rajpur village, P.O. Manikpur, Madhepura district of the Kosi region. Son of late Shri Tejnarayan Yadav, he originally belonged to a traditional farming family intimately connected to agricultural practices. Academically driven, he completed his matriculation in 1975, graduation in 1982, and post-graduation in Hindi Literature in 1984. He led a dedicated academic career, serving as Principal at Swami Vivekananda College in Madhepura, and later as Head of the Hindi Department at Adarsh Inter College, Ghelar, from 1990 to 2020.

Alongside his extensive teaching career, his passion for agricultural innovation persisted, leading him to systematically produce medicinal and aromatic species beginning around the year 2000. Seeking a sustainable alternative, he formally pivoted to medicinal plant cultivation in 2007, starting humbly on 20 decimals of leased land. His initiation began with foundational training at the Krishi Vigyan Kendra under the expert guidance of Dr. J. K. Handu. To deepen his expertise, he patiently underwent specialized training modules from prestigious institutions, including Rajendra Prasad Central Agricultural University, CIMAP Lucknow, Bihar Agricultural University Sabour, ATMA, and the Regional cum Facilitation Centre (RCFC-ER) of the National Medicinal Plant Board, MoAYUSH, Jadavpur University.

Armed with this technical expertise, he procured 2,500 Shatavari saplings and planted them on a 20 decimals plot. His meticulous care yielded a record production of 300 quintals of raw produce from just 20 decimals of land, which after processing yielded 30 quintals of dried Shatavari, earning him a remarkable income of `3.9 Lakhs in 2009. Moving beyond primary cultivation, he pioneered value addition by developing innovative Shatavari-based

products such as chocolates, peda, barfi, and laddoo, which quickly gained widespread popularity. Today, his operations have expanded to approximately 4 acres, where he utilizes complex intercropping techniques to grow Shatavari alongside Kalmegh, Black Turmeric, Sarpagandha, Ashwagandha, Brahmi, and numerous other important species. Furthermore, he has made significant strides in Vrikshayurveda and horticulture, cultivating a diverse array of fruits including Amla, Fig, Nigerian Orange, and Pomegranate alongside his medicinal crops.

Beyond his individual success, Shri Bhartiya has devoted himself to seamlessly blending traditional agricultural knowledge with modern scientific applications. He actively showcases his botanical yields at block, sub-division, district, and state-level exhibitions, motivating countless fellow farmers to adopt sustainable practices. His outstanding advancements in Shatavari production earned him the First State Prize in 2010, with his work was showcased at the Ashoka Hall within the Raj Bhavan of Bihar. His inspiring work also earned him a formal certificate of success at Vigyan Bhawan in 2016, presented with honor by the & then-Vice President of India, Shri Hamid Ansari. His exemplary farm even drew a personal visit from the Hon'ble Chief Minister of Bihar, Shri Nitish Kumar.

Since 2010, having received training from traditional healers, he has also been providing health-related services using medicinal plants, raising his annual integrated income to approximately `10 lakhs.

A lifelong learner, he has thoughtfully engaged with the global scientific community, notably presenting a research paper on medicinal plants at the 6th World Ayurveda Congress in Delhi. Ultimately, his practical success and tireless service led to his formal inclusion in formulating the state's 4th Agricultural Road Map, helping shape the strategic framework for regional agrarian development. To ensure future generations may also benefit from his wisdom, his field methodologies have been published as a valuable case study by Bihar Agricultural University, Sabour, and the Bihar State Department of Agriculture. Encouraged by his multi-faceted success, he established Rachna Herbal Private Limited, creating a formal platform that provides valuable internship opportunities to students from various government colleges.

Today, Shri Shambhu Sharan Bhartiya stands as an inspiring exemplar of the "Progressive Medicinal Farmer," beautifully bridging the gap between humble rural agrarian labor and the sophisticated needs of the herbal pharmaceutical industry. His journey—from a conventional farmer facing hardship to an acclaimed medicinal cultivator, academic, and entrepreneur—speaks of profound determination and a visionary approach to agriculture. With his quiet determination and tireless service, he continues to guide traditional farming communities toward the cultivation of high-value medicinal and aromatic plants.

SECTION

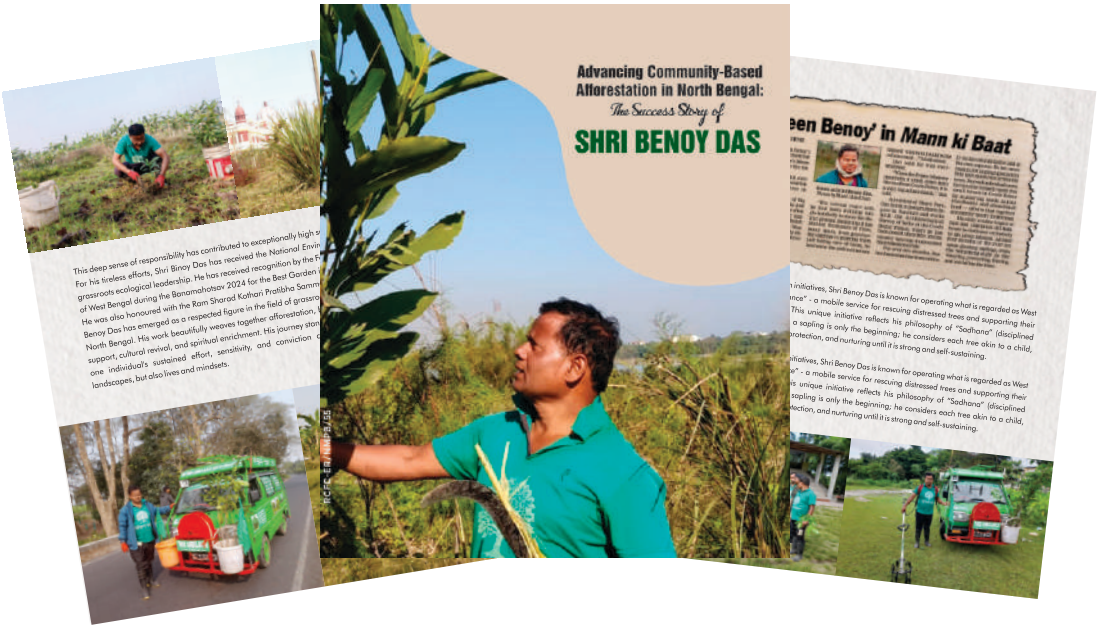
08

PUBLICATIONS AND AWARENESS TOOLS DISSEMINATED

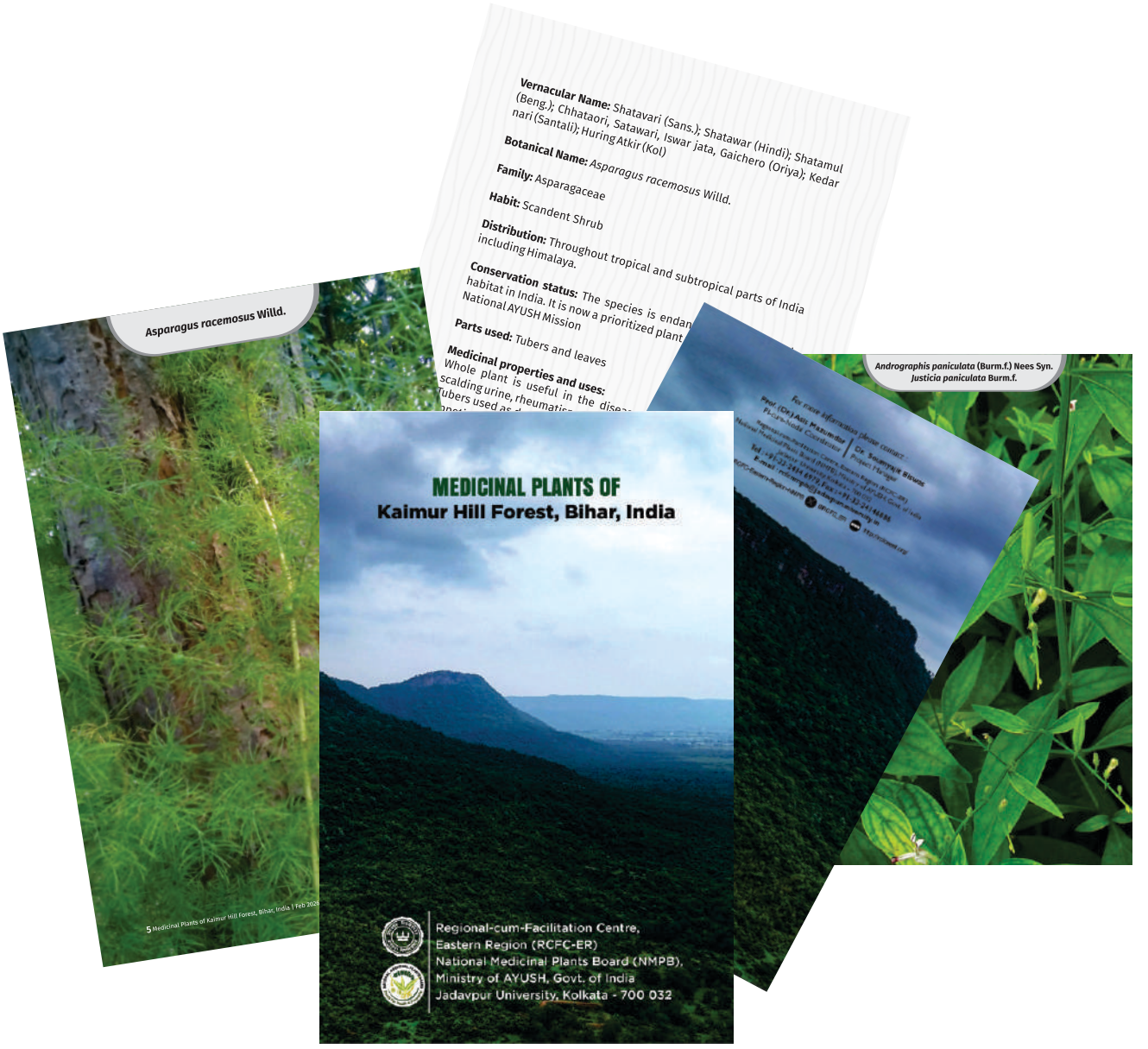
Cultivation of **Red Sanders, the Green Gold** ***(Pterocarpus santalinus)***

Cultivation of **Sandalwood** ***(Santalum album)***

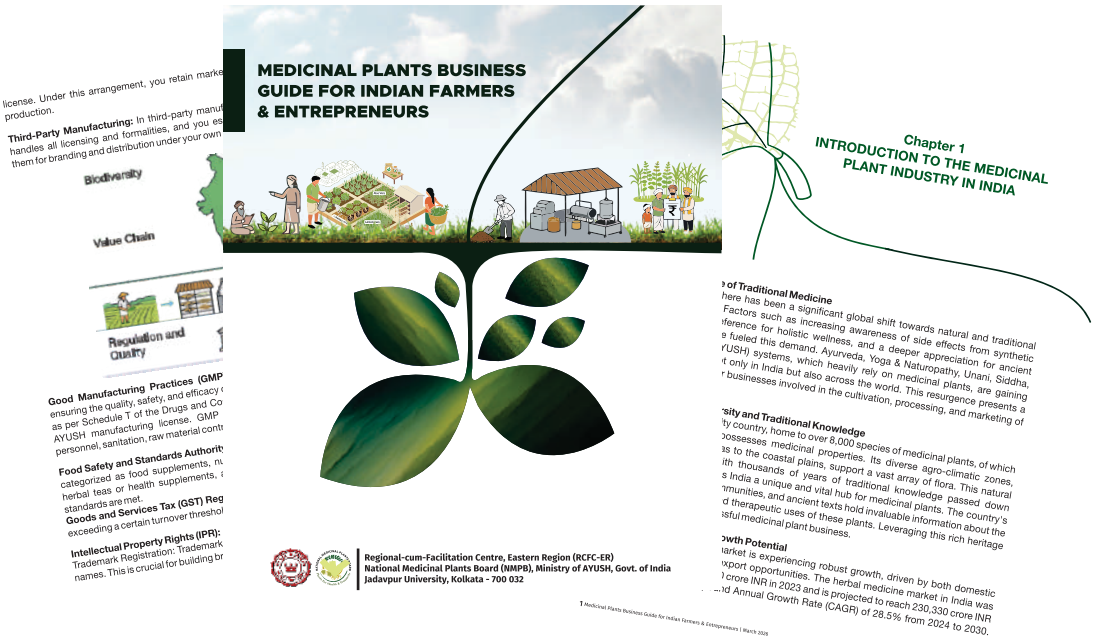
Bridging the Gap: How Mr. Abhay Somani Connected Farms, Labs, and Health-Conscious Homes



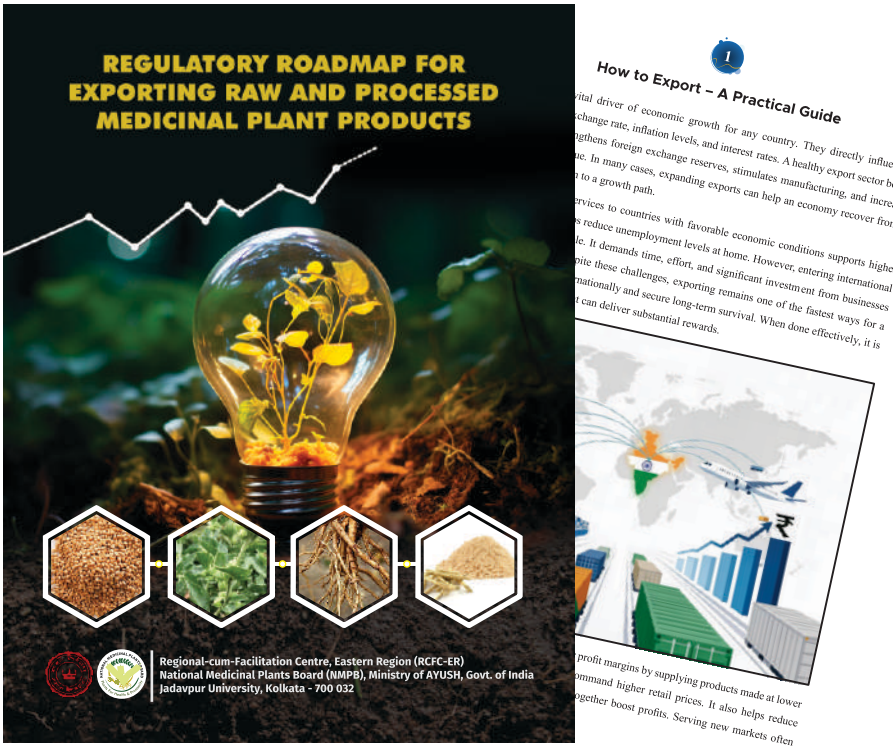
Advancing Community-Based Afforestation in North Bengal: The Success Story of Shri Benoy Das



Medicinal Plants of Kaimur Hill Forest, Bihar, India



Medicinal Plants Business Guide for Indian Farmers & Entrepreneurs



Regulatory Roadmap for Exporting Raw and Processed Medicinal Plant Products

Empowering Agriculture through Medicinal Plants: The Success Story of Shri Shambhu Sharan Bhartiya

Empowering Communities Through Traditional Healing: The Success Story of Vaidya Santanu Kumar Budhia

RCFC-ER Calendar 2026

Annual Report (Activities & Achievements) of RCFC-ER for the year 2024-2025

Awareness Tools Disseminated 1

Participation in the Celebration of 75-Day Countdown to International Yoga Day with Grand Yog Mahotsav at Kalinga Stadium, Bhubaneswar

As part of the Nationwide 75-day countdown to the International Day of Yoga 2025, a grand Yog Mahotsav was organized on 7th April 2025 at the iconic Kalinga Stadium in Bhubaneswar, Odisha. The event aimed to promote the practice of yoga and traditional systems of health and wellness across the country.

To commemorate this special occasion, the Regional-cum-Facilitation Centre – Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India, Jadavpur University, Kolkata, in collaboration undertook a significant initiative. Approximately 5,000 medicinal plants were distributed to participants, including species like Curry Patta (*Murraya koenigii*), Dalchini (*Cinnamomum verum*), Tulsi (*Ocimum tenuiflorum*), and Ashwagandha (*Withania somnifera*). These plants were chosen for their well-known therapeutic properties and relevance in Indian traditional medicine systems like Ayurveda.

The event was honored by the esteemed presence of Shri Prataprao Jadhav, Hon'ble Union Minister of AYUSH, along with Dr. Sambit Patra, Member of Parliament, and Ms. Pravati Parida, Hon'ble Deputy Chief Minister of Odisha. Also gracing the occasion were senior officials from the Ministry of AYUSH, including Vaidya Rajesh Kotecha, Secretary, Ministry of AYUSH, and Ms. Monalisa Das, IFS, Joint Secretary (Medicinal Plants), Ministry of AYUSH.

As a symbolic gesture of appreciation and sustainability, medicinal plants were ceremonially presented to the dignitaries and delegates. These guests actively took part in a plantation ceremony, symbolizing their commitment to promoting health, environmental consciousness, and the integration of medicinal plants into daily life.

A significant highlight of the event was the promotion of the National Campaign on Ashwagandha – A Health Promoter, an initiative aimed at raising public awareness about the wide-ranging health benefits of Ashwagandha, a revered adaptogenic herb in Ayurveda. As part of this campaign, 1,000 Ashwagandha seedlings were distributed among attendees, along with informative brochures detailing comprehensive information about the plant. The brochures covered key aspects such as identification features, commonly used parts, medicinal properties, key chemical constituents, recommended dosage, and proper methods of consumption.

The Yog Mahotsav successfully blended cultural celebration with public health advocacy, encouraging citizens to adopt yoga and traditional medicinal practices for holistic well-being.

Awareness Tools Disseminated 2

Celebration of World Environment Day 2025

To commemorate World Environment Day 2025, a "Clean Plastic Waste" Drive was organized on 5th June 2025 at the Jadavpur University campus by the Regional-cum-Facilitation Centre – Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Government of India, Jadavpur University, Kolkata. The initiative aimed to raise awareness and inspire impactful action against the escalating challenge of plastic pollution, aligning with this year's global theme, "Ending Plastic Pollution Globally."

The event began with RCFC-ER officials, addressing the pressing issue of plastic waste and its harmful effects on both terrestrial and aquatic ecosystems. The urgent need for joint efforts—at individual, community, and institutional levels—to eliminate single-use plastics and embrace sustainable alternatives was highlighted

A total of 30 participants, including students, researchers, RCFC-ER officials, and staff, actively took part in the drive. Holding banners, the participants traversed key areas of the campus such as academic buildings, gardens, area near RCFC-ER office, pond area, collecting plastic waste along the way.

Participants meticulously picked up non-biodegradable waste including discarded water bottles, food wrappers, polythene bags, broken containers, and other plastic debris. Safety and hygiene were ensured through the provision of gloves to all volunteers.

The collected plastic waste was transported to a central collection point, where it was sorted into recyclable and non-recyclable categories by the representatives from local municipal authorities and certified recycling partners for proper disposal and facilitate safe transport to recycling facilities.

The event concluded with a reflection session during which volunteers shared their insights and experiences and committed to reducing their plastic usage and actively promoting environmental sustainability in their daily lives and communities.

Outcomes and Impact:

- Plastic waste was collected from the university campus.
- Students showcased leadership and strong community engagement in environmental protection.
- The drive acted as a powerful awareness initiative promoting sustainable lifestyle practices.

This Clean Plastic Drive not only contributed to a cleaner university environment but also symbolized a step forward in building a greener, healthier, and plastic-free future. The initiative powerfully echoed the message that true change begins at the grassroots level, and through collective action, significant environmental transformation is possible.

As part of the World Environment Day 2025 celebrations, Prof. (Dr.) Asis Mazumdar, Nodal Coordinator RCFC-ER, JU, was invited as the Chief Guest at a special programme organized at DVC Tower, Kolkata. On this occasion, he delivered an engaging and thought-provoking lecture emphasizing the urgent need to reduce plastic pollution and adopt sustainable alternatives. The event also included a symbolic tree plantation ceremony, underscoring the importance of environmental stewardship and community participation in ecological restoration.
In addition, the Indian Institute of Social Welfare and Business Management (IISWBM) organized a dedicated programme on the same theme — *"Ending Plastic Pollution"* — to commemorate World Environment Day. Prof. (Dr.) Asis Mazumdar, PI cum Nodal Coordinator, RCFC-ER, NMPB, JU, addressed the audience, comprising students, faculties, and professionals, offering deep insights into the environmental, social, and economic impacts of plastic waste. He also highlighted strategic approaches and best practices to combat plastic pollution, stressing the importance of individual responsibility and collective action in creating a cleaner and greener future.

Awareness Tools Disseminated 3

Celebration of 11th International Day of Yoga 2025

Under the nationwide initiative of 'Yoga Sangam', aiming to host mass yoga demonstrations at 1,00,000 locations across India, different programmes were organized by the Regional-cum-Facilitation Centre – Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India, Jadavpur University, Kolkata with the objective to promote physical, mental, and environmental well-being through the practice of Yoga, in alignment with the unique initiative of "Harit Yoga".
As a prelude to the main celebration, a "Yoga Demonstration: 2-Day Countdown Event" was held on 19th June, 2025 in front of Aurobindo Bhavan & PG Science More, Jadavpur University, Kolkata. During this event, students of Yoga Centre under Department of Physical Education, JU enthusiastically performed the Common Yoga Protocol like Surya Namaskar, Natarajasana, Ardha-Baddha Padamottasana, Purna Salavasana, Raj Kopolasana, Ekpada Setu Bandhasana, Hanumanasana, etc., drawing attention from faculty members, staff and others. The demonstration aimed to build momentum, spread awareness, and encourage broader participation in the upcoming main event. It also served as a practical orientation session for beginners and onlookers, reinforcing the importance of Yoga in daily life.

The main event on 21st June, 2025 witnessed the participation of over 300 individuals, including notable delegates like Prof. Amitava Datta, Pro-Vice Chancellor, Jadavpur University, Prof. Asis Mazumdar, Nodal Coordinator, RCFC-ER, NMPB, JU, Dr. Ananya Barua, Dean, Faculty of Arts, JU, Dr. Sridip Chatterjee, Coordinator, Yoga Centre & HOD, Department of Physical Education, JU, Dr. Aparup Konar, Sr. Director of Physical Instruction & Asst. Gen. Secretary, Sports Board, JU, senior officials, students, faculty, NSS volunteers, and delegates from the university. A guided session of the Common Yoga Protocol was conducted by certified yoga trainers, promoting a comprehensive understanding of Yoga practices and their benefits.

A unique aspect of this year's celebration was the incorporation of the "Harit Yoga" initiative, which emphasizes the integration of environmental responsibility with physical and mental health. In this spirit, medicinal plants were distributed among participants to foster greener lifestyles. The plants distributed included:

- Neem (*Azadirachta indica*)
- Arjun (*Terminalia arjuna*)
- Ashwagandha (*Withania somnifera*)
- Nayantara (*Catharanthus roseus*)
- Kalmegh (*Andrographis paniculata*)

These species are known for their medicinal properties and were chosen to inspire participants to adopt eco-friendly and health-conscious habits in daily life.

The International Day of Yoga 2025 celebration at Jadavpur University was a meaningful convergence of traditional knowledge and modern awareness. Through the combined efforts of RCFC-ER, the Department of Physical Education, and NSS, the event successfully promoted the message of holistic well-being, sustainability, and unity. The enthusiastic participation and the distribution of medicinal plants reflected the deeper essence of Yoga — harmony with self, society, and nature.

Awareness Tools Disseminated 4

Celebration of 10th Ayurveda Day, 2025

A. Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Government of India, Jadavpur University, Kolkata, organized a programme for celebration of 10th Ayurveda Day, at Kushwaha Herbal Garden, Govindpur, under Saraiya Block of Muzaffarpur district, Bihar on 15th September, 2025. Farmers from various blocks of the district, as well as from Vaishali, Nalanda, and Saran districts, participated in the event.

Mr. Sushil Kumar, Block Agriculture Officer, Saraiya, Shri Maheshwar Rai, Chairman of the Farmer Advisory Committee (ATMA), Shri Rahul Kumar, founder of the Bihar Environment Protection Campaign, Vaidya Ramchandra Ram, Traditional Healer Shri Subodh Kumar, Technical Assistant, RCFC-ER, NMPB, JU were amongst the dignitaries present in the programme.

Around 50 medicinal plants, 7 varieties of nutri-cereals/millets (Shree Anna), Panchagavya-based medicinal products and the produce of traditional healers and Ayurvedic manufacturing companies were exhibited at the programme. A quiz session was also organized, and successful students and farmers were felicitated with prizes. In addition, each participant was gifted a sapling of Bael (*Aegle marmelos*), Shatavari (*Asparagus racemosus*) and Ghritkumari (*Aloe vera*). The programme focused on adopting an Ayurveda-friendly lifestyle emphasizing that Ayurveda offers solutions for all kinds of ailments, key medicinal plants and their uses, developing kitchen gardens in limited space, millets for self-consumption, organic farming and harmful effects of chemical fertilizers and pesticides. Over 150 participants, including students, public representatives from various blocks, medicinal product buyers, and representatives of Ayurvedic companies actively took part in the programme.

B. As part of the celebrations for the 10th Ayurveda Day, Regional-cum-Facilitation Centre – Eastern Region (RCFC-ER), National Medicinal Plants Board (NMPB), Ministry of AYUSH, Government of India, organized a special herbal garden visit for school students on 18th September 2025 in Kolkata.

The event took place at the Herbal Garden, located within the Modern Medicinal Plants Nursery (developed & maintained by RCFC-ER; infrastructure supported by Jadavpur University and funded by NMPB, Ministry of AYUSH, Govt. of India) at the Main Campus of Jadavpur University.

The purpose of the visit was to create awareness among young students about the significance of Ayurveda, its integration into everyday life, and the vital role of medicinal plants in promoting holistic health and well-being.

A group of enthusiastic students from Jadavpur Vidyapith, a prominent educational institution in the city, participated in the guided tour of the garden. During the visit, students were introduced to various medicinal plants, their therapeutic properties, and traditional uses.

To encourage sustainable living and deeper engagement with nature, saplings of medicinal plants were distributed to the students. Informative pamphlets containing valuable knowledge about Ayurveda, home remedies, and plant-based healing methods were also handed out to further enhance learning.

Adding a creative and eco-conscious element to the programme, environment-friendly pens and pencils embedded with Ashwagandha (*Withania somnifera*) seeds were distributed among the participants. These seed-embedded stationery items not only serve an educational purpose but also motivate students to plant and nurture medicinal herbs at home, thereby fostering a habit of green living and environmental responsibility.

The event was well received by the students and accompanying teachers, and it successfully contributed to building awareness of India's rich heritage of traditional medicine.

5. Dr. Soumyajit Biswas, Project Manager, RCFC-ER, National Medicinal Plants Board, Ministry of AYUSH, Govt. of India, Jadavpur University, Kolkata attended the "Buyer Seller Meet on Medicinal and Aromatic Plants" as the guest of honour on 26th August, 2025 at RPCAU, Pusa, Samastipur Bihar. He mentioned the role of NMPB as well as RCFC-ER, since its inception by actively promoting the cultivation, conservation, and trade of medicinal plants in the eastern region. He pointed out that India, with over 8,000 medicinal species, holds a unique leadership position in the global herbal sector, and Bihar is emerging as a promising hub for plants like Giloy, Tulsi, Shatavari, and Lemongrass.

6. On behalf of RCFC-ER, NMPB, JU Mr. Sudipto Ghosh, Assistant Project Manager (Marketing) and Mr. Prasun Mukherjee, Project Consultant (Marketing) attended the Sikkim Reverse Buyer Seller Meet on 23rd July 2025 in Kolkata, organized by the Commerce & Industries Department, Government of Sikkim, in collaboration with The Confederation of Indian Industry (CII). The event featured a business conference, product exhibition, and B2B/B2G meetings showcasing Sikkim's high-value products and investment opportunities across multiple sectors. The event was graced by several dignitaries, including Mr. Tshering Thendup Bhutia, Hon'ble Minister, Commerce & Industries and Tourism & Civil Aviation, Government of Sikkim; Mr. M. Ravi Kumar, Principal Director, Commerce & Industries Department, Government of Sikkim; and Mr. T. T. Bhutia, Director, Commerce & Industries Department, Government of Sikkim, Mr. Debashis Dutta, Chairman, CII West Bengal State Council, and Mr. Soni Virdi, Chairman, CII Sikkim State Council.

7. Dr. Soumyajit Biswas, Project Manager, RCFC-ER, NMPB, JU, Kolkata participated and delivered a special address in the National Seminar on Indian Knowledge Systems: Perspectives and Praxis on 11th March, 2026 at Bangladesh Bhavana, Visva-Bharati, Bolpur, West Bengal. He highlighted the role of NMPB, to develop medicinal plants sector in India, particularly in eastern region.

8. RCFC-ER, NMPB, JU, Kolkata participated in the programme for Observance of 40th National Science Day, 2026 at the Ramakrishna Mission Institute of Culture, Golpark, Kolkata on 6th March, 2026.

SECTION

09

MONITORING & EVALUATION

Verification and Assessment Report
Monitoring & Evaluation of Project entitled
"Revitalizing of Traditional Healthcare Practices and Medicinal Plants through Promotion of Herbal Garden in the School Campus" Project NO. NGO/SHG/OD-01/2024

Overall assessment of the projects (**First** / ~~Second / Third Verification~~ Report)

State	Odisha	District	Puri
Project Title	"Revitalizing of traditional health care practices and medicinal plants promotion of Herbal Garden in School Campus for establishment of 20 School Herbal Gardens"		
Duration of Monitoring & Evaluation: 2 days			
Date of Visit	2nd February, 2026	Date of report preparation	27-28 February, 2026
Visiting Officials (Name with Mobile number)	1. Dr. Soumyajit Biswas, Project Manager, RCFC ER, NMPB, JU. Mob.- 9007844777 2. Mr. Jyoti Prakash Padhi, Technical Assistant (Odisha) Mob. - 6370346224		
Project Staff / Officials who accompanied during field visit(s): (names & designation) with mobile number	Diptimaya Mishra, Director, SELFHELP, Mob.- 947155440		

Brief Description of the Implementing Agency:
SELFHELP is a community-based non-governmental organization (NGO) dedicated to promoting sustainable development through empowerment, education, and capacity-building initiatives. Established with a focus on rural and semi-urban populations, SELFHELP works across sectors such as livelihood generation, women empowerment, health, education, and cultural preservation.
With a people-centric approach, the organization implements projects that encourage community participation, skill development, and access to government schemes. SELFHELP has earned recognition for its grassroots engagement and effective implementation of programs in partnership with government bodies and other stakeholders.
Type of project and approved objectives:
The main aim is to establish herbal gardens in schools to reach out the minds of children and make them acquainted with the commonly available and frequently used medicinal plants.

- To encourage and promote 'Herbal Garden in schools' concept to schools and provide them an opportunity to work closely with herbal plants.
- To inculcate a sense of familiarity from childhood with surrounding biodiversity and its conservation, especially medicinal plants
- To encourage students to use herbs in food and primary health care need.
- To popularize the usefulness of commonly available and frequently used herbal plants and to conserve the associated traditional knowledge for future generations, in a fun and practical way

Component of the Central Sector Scheme	Central Sector Scheme for Conservation, development and sustainable management of medicinal plants- Promotion of Herbal Garden (School Herbal Garden)		
Name of Principal Investigator (PI)	Priyanka Mishra	Phone / Mobile No.	8328619850
Contact Address	SELFHELP, Jawahar Chowk, Dhenkanal	Contact Details	pmishra@gitam.in
Name of Co-PI	Tatinee Mohapatra	Phone / Mobile	9438839890
Contact Address	SELFHELP, Jawahar Chowk, Dhenkanal	Contact Details	selfhelp1996@gmail.com
Duration of the Project	5 years	Project Start date	08.11.2025
Total Project Cost: INR 10,55,250/-			
Amount Sanctioned INR 10,55,250.00	Total amount released INR 5,00,000.00	Total amount Utilized INR 5,00,000.00	

Target and Achievement:

The project was implemented as per the project planning and accordingly physical achievement (Established school herbal gardens in 20 different schools with 24 medicinal plant species) and financial achievement was achieved in full as per the target in the 1st year of the project given in table below.

Sl. No.	Sanctioned/Heads	Target (Rs. in lakh)	Achievement (Rs. in lakh)
1.	Establishment of School Herbal Garden (20 nos.) @ Rs. 25,000 per school	5.00	5.00
2.	Maintenance for 4 years	5.55250	(yet to be released from NMPB)
	Total	**10.55250**	**5.00**

Longitude and Latitude of the area:

SCHOOL NAME	LATITUDE	LONGITUDE
BATABIHARI GOVT. HIGH SCHOOL	N 20 ° 43' 18.9696"	E 85° 36' 13.0752"
GOVT. UPPER PRIMARY SCHOOL NUAGAN	N20° 44' 15.5832"	E85° 36' 37.1988"
CHAULIA G.P. HIGH SCHOOL	N 20° 44' 3.0156"	E 85° 38' 38.7204"
GOVT.UPPER PRIMARY SCHOOL SOGARPASI	N 20° 43' 54.3072"	E 85° 39' 19.5228"
PRIMERY SCHOOL SOGARPASI	N 20° 43' 34.3236"	E 85° 39' 45.1584"
DAMODARNALI UPPER PRIMARY SCHOOL	N 20° 42' 55.3464"	E 85° 40' 11.19"
UDAYANATH GOVT. U.G. HIGH SCHOOL	N 20° 45' 33.2532"	E 85° 40' 6.0312"
GOVT. HIGH SCHOOL RADHADEIPUR	N 20° 48' 4.23"	E 85° 39' 34.0668"
GOVT. HIGH SCHOOL SAPTASAJYA	N 20° 34' 38.19"	E 85° 35' 38.292"
KAMANING PRIMERY SCHOOL	N 20° 35'34.9908"	E 85° 35'4.1532"
KANKADAHAD GP HIGH SCHOOL	N 20° 37' 46.9524"	E 85° 31' 28.6356"
SATYABADI GOVT HIGH SCHOOL	N 20° 38' 6.3996"	E 85° 32'59.8668"
SAPNESWAR HIGH SCHOOL	N 20° 34' 8.7456"	E 85° 29' 14.8956"
BANSIDHAR HIGH SCHOOL	N 20° 37'46.9776"	E 85° 31' 28.902"
GOVT. HIGH SCHOOL BANASINGH	N 20° 47' 1.2264"	E 85°38'48.0156"
GOVT.UP SCHOOL GAJAMARA	N 20° 35'42.4536"	E 85° 35' 47.706"
GOVT. PRIMARY SCHOOL, KALIABANDHA	N 20° 35' 42.4536"	E 85° 35' 47.5764"
MAA BALIBAUTI ANCHALIKA HIGH SCHOOL	N 20° 43' 29.028"	E 85° 36' 42.2928"
GOVT. UPPER PRIMARY SCHOOL, KHAMAR, MANDAPAL	N 20° 44' 36.2292"	E 85° 37' 20.9748"
GOVT. UPPER PRIMARY SCHOOL DERASINGH	N 20° 41'51.0648"	E 85° 37' 25.824"

Whether the board of funding agency's name (NMPB) is installed (Yes or No): Yes, but in some instances the board was damaged because of non maintainence.

Whether the progress achieved as per approved objectives: The project achieved all the approved objectives initially, but in some of the schools, no proper maintenance has been followed to grow the plant species in a proper manner. Due to some unavoidable reasons like ongoing electrification works, bore well related issues, and non-availability of subsequent maintenance funds.

Whether the signage board along with usage of medicinal plants is installed (Yes or No): The PIA has installed the signage board but in some cases the board was not prpoperly maintained.

Land / Area details (Approved area, covered area etc.): The herbal garden established in 20 schools of Dhenkannal District, Odisha. As per the target the herbal garden has established inside the school campus of 20 schools and achieved physical targets mentioned in the original proposal.

Status of the project (deliverable–wise) while making the Monitoring & Evaluation Visit (in detail along with photographs):

Through interactions with the project implementers, conscious field observations, and physical verification, the evaluation team assessed that the project was initially implemented in alignment with the approved objectives. However, in a few schools, maintenance activities could not be carried out due to unavoidable constraints such as ongoing electrification works, borewell-related issues, and non-availability of subsequent maintenance funds. As a result, some of the planted medicinal species have dried up or been damaged in those locations.

The PIA assured the evaluation team that immediate steps would be taken to replant the damaged medicinal plant species and to ensure proper and regular maintenance of the herbal gardens in all the concerned schools, subject to the release of the maintenance funds by NMPB.

The evaluation team also reviewed the available records at the project office and examined photographs from the project's photo archive. These clearly indicated that the project had been implemented in accordance with the approved objectives at its inception. Various documents demonstrating the progress and achievements of the project were presented before the evaluation team as evidence that the intended objectives had been substantially achieved.

a. The details of the works and activities undertaken, along with supporting photographic documentation, are provided in the following sections for better comprehension and reference. The area of each herbal garden are fenced with barbed wire and sign board near the entrance of herbal garden is installed.
b. Total 24 species of medicinal plants have planted and maintained in the designated area of school herbal gardens (Annexure-I).
c. The medicinal plant species have been planted by using horticultural and silvicultural techniques. The land development, fencing work was carried out.
d. In the entrance of the garden/school the board has founded providing with name of the garden, funded by, institute name.
e. The boards of the medicinal plants in the herbal garden are displayed with botanical name, common name, and uses near the plants for providing and creating awareness amongst different stakeholders.
f. Different awareness activities have been conducted for orientation of students about the usage of medicinal plants in daily life.

Photographs during the Field visit


Radhadeipur, Odisha, India
Radhadeipur, Odisha, India
Lat N 20° 48' 4.3272" Long E 85° 39' 34.0308"


SCHOOL HERBAL GARDEN
School Name: Govt. High School Radhadeipur
Implementing Agency: Sahjhola Jawahar Chowk, Dhenkanal
Supported By: National Medicinal Plant Board, New Delhi
GPS Map Camera


GPS Map Camera
Chaulia, Odisha, India


GPS Map Camera
Chaulia, Odisha, India
Lat N 20° 43' 54.264" Long E 85° 39' 19.2816"


aulia, Odisha, India
Chaulia, Odisha, India
Lat N 20° 43' 54.1308" Long E 85° 39' 19.3248"


aldigundi, Odisha, India
ulia, Odisha, India


Chaulia, Odisha, India
Chaulia, Odisha, India


Dandarnali, Odisha, India
Lat N 20° 42' 55.3464" Long E 85° 40' 11.19"


Saptasajya, Odisha, India
Lat N 20° 35' 34.9908" Long E 85° 35' 4.1532"
02/02/26


Haldigundi, Odisha, India
Lat N 20° 43' 19.2828" Long E 85° 36' 11.8368"


Nathua, Odisha, India
Mandapal, Odisha, India
Lat N 20° 44' 31.4016" Long E 85° 37' 33.258"
02/02/26

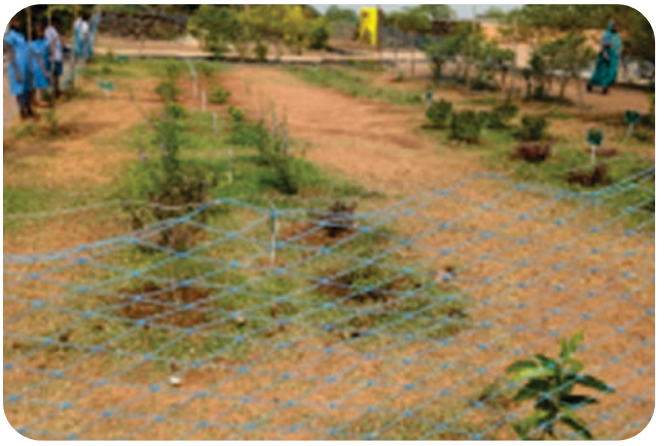
Photographs from PI Archive

1.GOVT.HIGH SCHOOL BANASINGH

2.GOVT. HIGH SCHOOL RADHADEIPUR

3.DAMODARNALI UPPER PRIMARY SCHOOL

4.GOVT. UPPER PRIMARY SCHOOL SOGARPASI



5.PRIMARY SCHOOL SOGARPASI

6.CHAULIA G.P. HIGH SCHOOL

7.KAMANING PRIMERY SCHOOL

8.GOVT. HIGH SCHOOL SAPTASAJYA

9.GOVT. UPPER PRIMARY SCHOOL NUAGAN

10. BANSIDHAR HIGH SCHOOL

11.GOVT. UPPER PRIMARY SCHOOL DERASINGH

12.GOVT. UP SCHOOL GAJAMARA

13.KANKADAHAD GP HIGH SCHOOL

14.UDAYANATH GOVT. U.G. HIGH SCHOOL

15.BATABIHARI GOVT. HIGH SCHOOL

Overall Grading of the Project (Satisfactory / Not Satisfactory): Satisfactory	
Short coming, if any:	No significant shortcoming was found.
Recommendation & Suggestion :	The project has been implemented in accordance with the approved proposal. It is recommended that regular maintenance and necessary follow-up care be carried out as per the prescribed project schedule and emerging requirements to ensure the sustainability and long-term viability of the project. The activities under the project were executed effectively, and the intended objectives have been successfully achieved. In view of the satisfactory progress and performance, the project is hereby recommended for the release of the subsequent installment of funds.

ANNEXURE- I: Medicinal Plants Maintained in the School Herbal Garden

BOTANICAL NAME	LOCAL NAME	FAMILY	USES
Ocimum sanctum	Tulashi	Lamiaceae	Cold,cough
Centell asiatica	Thalkudi	Apiaceae	Acidity,memory enhancer
Kalanchoe pinnata	Amarpoi	Crassulaceae	Kidney Health, respiratory issues
Saraca asoca	Asoka	Fabaceae	Uterine disorders, menorrhagia
Mesua ferrea	Nageswar	Calophyllaceae	Piles,menorrhagia
Oroxylum indicum	Phanphana	Bignoniaceae	Diarrhea,jaundice
Pterocarpus santalinus	Raktachandan	Fabaceae	Skin disorder
Asparagus racemosus	Shatavari	Asparagaceae	Boost immunity, treat infertility
Pterocarpus marsupium	Piasal	Fabaceae	Diabatis management
Mimusops elengi	Bakul	Sapotaceae	Oral diseases
Nyctanthes arbor-tristis	Gangaseuli	Oleaceae	Malaria
Desmodium gangsticum	Shalaparni	Leguminoceae	Rheumatoid Arthritis
Rosmarinus officinalis	Rosemary	Lamiaceae	Hair growth
Bacopa monnieri	Brahmi	Plantaginaceae	Memory enhancer
Eupatorium triplinerve	Ayapan	Asteraceae	Hemostatic,styptic, anticoagulant
Mentha piperita	Pudina	Lamiaceae	Indigestion,acidity
Ocimum basilicum	Durlava	Lamiaceae	Cold,cough
Coleus amboinicus	Rukunahatapocha	Lamiaceae	Indigestion,acidity
Aloe barbadensis Miller	Ghritkumari	Asphodelaceae	Skin disorder
Bergenia ligulata	Pasana bedi	Saxifragaceae	Urinary health
Eryngium foetidum	Wild coriander	Apiaceae	Anti-inflammatory, Pain relief
Costus igneus	Keukand(Insulin)	Costaceae	Diabatis
Justicia adhatoda	Basang	Acanthaceae	Asthama,bronchitis
Adiantum lunulatum	Rakta kahai	Pteridaceae	Urinary health, Hair care

Verification and Assessment Report

Monitoring & Evaluation of Project entitled "Promotion of School Herbal Garden in Aspirational District (Malkangiri, Rayagada & Kalahandi) of Odisha"

Project No. NGO/SHG/OD-02/2024-NMPB

Overall assessment of the projects
(First / ~~Second / Third~~ Verification Report)

State	Odisha	District	Malkangiri, Rayagada & Kalahandi
Project Title	"Promotion of School Herbal Garden in Aspirational District (Malkangiri, Rayagada & Kalahandi) of Odisha"		
Duration of Monitoring & Evaluation: 4 days			
Date of Visit	11.02.2026	Date of report preparation	22.02.2026
Visiting Officials (Name with Mobile number)		1. Mr. Sudipto Ghosh, Assistant Project Manager Marketing, RCFC ER, NMPB, JU. Mob. - 8017172880	
Project Staff / Officials who accompanied during field visit(s): (names & designation) with mobile number		1. Mr. Banamali Sahoo, Chairman, Socio Cultural Development Centre, Odisha. Mob. - 9777367460	

Brief Description of the Implementing Agency:
Socio Cultural Development Centre (SCDC) established in the year 2001 to create opportunities of gainful self-employment of rural families, especially disadvantaged sections, ensuring sustainable livelihood enriched environment, improved quality of life and good human values. This is being achieved through development research, effective use of local resources, extension of appropriate technologies and up gradation of skills and capabilities with community participation. SCDC is a non-political, secular and professionally managed organization dedicated for the welfare of the rural people in the state of Odisha.

Type of project and approved objectives: Central Sector Scheme for Conservation, development and sustainable management of medicinal plants-Promotion of Herbal Garden (School Herbal Garden)

Objectives:

1. Raise awareness of the importance of medicinal plants in day to day life with scientific and technical knowledge for health awareness.
2. Enhance knowledge of tribal community in medicinal plants.
3. Promote medicinal plants in the nearby areas.

Component of the Central Sector Scheme	To promote and implement "Promotion of School Herbal Garden in Aspirational District (Malkangiri, Rayagada & Kalahandi) of Odisha"		
Name of Principal Investigator (PI)	Prof. Manoj Kr. Ghosal	Phone / Mobile No.	06742973260 / 9556271208
Contact Address	SCDC Campus, Hajipur, P.O. Biridi, Jagatsinghpur, Odisha - 754111	Contact Details	scdcbls@yahoo.in
Name of Co-PI	Dr. Manoj Das	Phone / Mobile No.	9777367460
Contact Address	SCDC Campus, Hajipur, P.O. Biridi, Jagatsinghpur, Odisha - 754111	Contact Details	igetodisha@gmail.com
Duration of the Project	5 Years	Project Start date	01.09.2024
Total Project Cost: INR 23,85,000.00			
Amount Sanctioned: INR 23,85,000.00		Total amount released: INR 11,25,000.00	Total amount Utilized: INR 11,25,000.00

Target and Achievement:

The project was implemented as per the project planning and accordingly physical achievement (Established school herbal gardens in 45 different schools with 34 medicinal plant species) and financial achievement was achieved in full as per the target in the 1st year of the project.

Sl. No.	Sanctioned/Heads	Target (Rs. in lakh)	Achievement (Rs. in lakh)
1.	Establishment of School Herbal Garden (45 nos.)	11.25	11.25
2.	Maintenance for 4 years	12.60	(yet to be released from NMPB)
Total		23.85	11.25

District: Malkangiri

Sl.	School Name	Latitude	Longitude
1	Aurobinda Vidyapitha, MPV-13	18.0645	81.8712
2	Govt. UGHS, Mandapalli	18.1700	81.8500
3	BMHS, Iralgundi	18.1561	81.6542
4	SLN High School, Sikhapalli	18.2530	81.8214
5	JPHS, MV-7	18.3412	81.8985
6	G.N. High School, Banktiguda	18.3305	81.9120
7	SSGJ High School, Thapaguda	18.3750	81.8842
8	Govt. UGHS, Krusuwada	18.2114	81.9325
9	Govt. High School, MPV-6, Pulimetla	18.0421	81.8936
10	UGHS, Sindhrimal	18.3912	81.9455

District: Rayagada

Sl.	School Name	Latitude	Longitude
1	Govt. (SSD) High School, Antamoda	19.3325	83.4514
2	Govt. (SSD) High School, Revolkona	19.2210	83.5621
3	Govt. Upper Primary School, Kultiguda	19.1685	83.4241
4	Ashram School, Gadiseskhal	19.0842	83.3915
5	UKMM Bidya Pitha, Gopalwadi	19.1550	83.3820
6	Govt. Upper Primary School, Badachandili	19.1945	83.4012
7	Govt. High School, Penta	19.0521	83.4410
8	Ashram School, Bhakuruguda	19.1245	83.4720
9	Green Valley School, Penta	19.0535	83.4425
10	Govt. (SSD) Girls High School, Kandhamaligaon	19.2514	83.5120

District: Kalahandi

Sl.	School Name	Latitude	Longitude
1	Chichaiguda Govt. High School	19.8214	82.8541
2	Ganesh English Medium School, Baner	19.5400	82.8200
3	Nilamadhab Govt. High School	19.7845	82.9120
4	Govt. UP School, Mundraguda	19.7187	82.9209
5	Krupasindhu Govt. High School	19.6521	82.8845
6	PM Shri High School, Junagarh	19.8621	82.9405
7	Times Academy Gurukul, Bhawanipatna	19.9100	83.1500
8	Kulihari High School	19.8300	82.9800
9	Hi-Tech Public School, Bhawanipatna	19.8800	83.1700
10	Bhatanpadar High School	19.8142	82.9654
11	Panchayat High School, Medinipur	19.9200	83.2000
12	Scholar Model School, Dharamgarh	19.8785	82.7812
13	SOM Public School, Dharamgarh	19.8750	82.7750
14	Shastriji Shikshya Niketan, Bhawanipatna	19.9042	83.1610
15	Shastriji English Medium School	19.9055	83.1625
16	Marthama English Medium School	19.7541	83.0512
17	BACHPAN, Bhawanipatna	19.9072	83.1670
18	St. Xavier High School, Dharamgarh	19.8821	82.7914
19	Charbahal High School	19.8542	82.8210

20	Lankeswari Govt. High School, Junagarh	19.8650	82.9412
21	Fun and Learn School, Bhawanipatna	19.9112	83.1645
22	Dhanurjaya High School, Dumerbahal	19.8700	82.9700
23	Dibyajyoti Public School	19.8912	83.1541
24	MKMC Baldiamal, Junagarh	19.8452	82.9321
25	Dadhibaman High School, Daspur	19.9412	82.9845

Whether the board of funding agency's name (NMPB) is installed (Yes or No): Yes

Whether the progress achieved as per approved objectives: The project achieved all the approved objectives.

Whether the signage board along with usage of medicinal plants is installed (Yes or No): Although the PIA installed the signage boards, some have been partially or completely destroyed by natural calamities or lack of maintenance. Consequently, the PIA has been requested to reinstall these boards and correct the spelling errors identified on the existing signage.

Land / Area details (Approved area, covered area etc.): The herbal garden established in 45 schools of Malkangiri, Rayagada and Kalahandi Districts of Odisha. As per the target the medicinal plant garden has established inside the school campus of 45 schools and achieved physical targets mentioned in the original proposal.

Status of the project (deliverable–wise) while making the Monitoring & Evaluation Visit (in detail along with photographs):
The project was successfully implemented in alignment with its core objectives. The evaluation team verified this through interactions with the Project Investigator and implementation staff, coupled with systematic observation and physical verification. The following details outline the activities completed, supported by photographic evidence.

a. The area of each herbal garden was securely fenced, and a primary signage board was installed near the entrance.
b. A total of 30 medicinal plants species (selected from the 34 listed species) were planted and are being maintained within the designated school garden areas (refer to Table 1).
c. Planting was carried out using professional horticultural and silvicultural techniques. This phase also included land development, fencing installation, and the establishment of water resource system.
d. Descriptive boards were placed at each garden entrance, clearly stating the garden's name, the funding agency, and the implementing institute.
e. Individual medicinal plants are labeled with display boards featuring their botanical names, common names, and therapeutic uses to foster awareness among students and stakeholders.
f. Various educational activities were conducted to orient students on the practical applications and benefits of medicinal plants in daily life.

Table 1

Sl. No.	**Botanical Name**	**Local name** (Sanskrit name in bracket)	**Use(s)**
Herbs			
1.	*Acorus calamus*	Vacha	Pharyngitis
2.	*Aloe vera*	Ghee-kuanri (Kumari/Ghrita-kumari)	Burns, used as facial cream
2.	*Andrographis paniculata*	Bhuin-nimba/Chireita (Kiratatikta/Bhoonimbah)	Fever & Diabetes
3.	*Artemisia nilagirica*	Dayana	Breast cancer
4.	*Bacopa monnieri*	Bhahmi/Panikundi (Brahmi)	Brain tonic
5.	*Catharanthus roseus*	Sadabihari (Sadapushpa)	Diabetes, Hypertension
6.	*Centella asiatica*	Thalkudi (Mandukaparni)	Gastric trouble, Brain tonic
7.	*Coleus ambonicus*	Rukuna-hatapochha/Juani-patra (Omavalli)	Fever, cold, indigestion

8.	*Curcuma longa* *Hedychium coronarium* [vulnerable]	Haladi (Haridra) Adaphula/Gada	Skin diseases
9.	*Kalancho pinnata*	Amarapoi (Parnabija)	Diarrhoea, cholera
10.	*Mentha spicata*	Podina (Pudina)	Gastric trouble
11.	*Ocimum sanctum*	Tulasi (Tulsi/Manjari)	Cough & Fever
12.	**Rauvolfia serpentina* [endangered]	Patalagaruda (Sarpagandha)	Hypertension
13.	*Tribulus terrestris* *Uraria picta* [endangered]	Gokhara (Gokshurah) Iswarajata (Prisniparni)	Rejuvinative, tonic Dasamula modaka (General debility)
14.	*Vetiveria zizanioides*	Bena (Ushira)	Water purifier, polyuria
15.	*Withania somnifera*	Aswagandha	Rejuvinative & blood pressure

Climbers			
1.	*Asparagus racemosus*	Satabari	Lactation, Rejuvinative
2.	**Gloriosa superba* [endangered]	Agnisikha/Dasaraphula	Skin disease, Rhematism
3.	*Gymnema sylvestre*	Gudamari (Madhunasini)	Diabetes
4.	**Paederia foetda* [vulnerable]	Pasaruni	Gastric problem, Rheumatism
5.	**Piper longum* [endangered]	Pippali	Fever & cold
6.	*Piper nigrum*	Golamaricha	Indigestion
7.	*Tinospora cordifolia*	Guluchi (Guduchi)	Diabetes, Obesity
Shrubs			
1.	*Adhatoda vasica* *(Justicia adhatoda)*	Basanga (Vasa/Vasaka)	Cough, expectorant
2.	*Clerodendrum philippinum*	Brajamalli	Diabetes
3.	*Lawsonia inerme*	Manjuati	Jaundice
4.	*Vitex negundo*	Begunia (Nirgundi)	Rheumatic pain
Trees			
1.	*Aegle marmelos*	Bela (Bilva)	Constipation, indigestion
2.	*Azadiracta indica*	Neema (Nimbah)	Skin diseases
	Cassia fistula	Sunari (Aragwadha/Swarnajhari)	Skin diseases/ Constipation
	Cycas circinalis [vulnerable]	Odasamari	
3.	**Mesua ferrea* [Vulnerable]	Nageswara (Nagakesara)	Rejuvinative, tonic
4.	*Murraya koenigii*	Bhersunga	Diabetes
5.	*Nyctanthes arbor-tristis*	Gangasiuli/Singadahara [Sephalika]	Common fever, intermittent fever
	Oroxylum indicum [endangered]	Phanaphana	Dashamularistha (General debility)
6.	*Phyllanthus emblica*	Dhatri-aenla (Amalaki)	Rejuvinative
	Pterocarpus marssupium [endangered]	Piyasala	Diabetes
7.	***Saraca asoca* [critically endangered]	Asoka	Menstrual disorders
8.	*Symplocos racemosa* [critically endangered]	Lodha (Lodhra)	Gastro-intestinal disorder

Overall Grading of the Project (Satisfactory / Not Satisfactory): Satisfactory	
Short coming, if any:	-
Recommendation & Suggestion :	Funding for the next installment could be released

Govt. Upper Primary School, Badachandili, Rayagada

Govt. Upper Primary School, Kultiguda, Rayagada

Green Valley School, Penta, Rayagada

Govt. (SSD) High School, Antamoda, Rayagada

Govt. (SSD) High School, Revolkona, Rayagada

Govt. (SSD) Girls High School, Kandhamaligaon, Rayagada

JPHS, MV-7, Malkangiri

SLN High School, Sikhapalli

SSGJ High School, Thapaguda

Verification and Assessment Report

Monitoring & Evaluation of Project entitled "Production of Quality Planting Material of Medicinal Plants"

Project No. Z.18017/188/NGO/QPM/WB-01/2016-17-NMPB

Overall assessment of the projects
(~~First / Second~~ / Third Verification Report)

State	West Bengal	District	South 24-Parganas
Project Title	"Production of Quality Planting Material of Medicinal Plants"		
Duration of Monitoring & Evaluation: One day			
Date of Visit	20.02.2026	Date of report reparation	02.03.2026
Visiting Officials (Name with Mobile number)		1. Dr. Soumyajit Biswas, Project Manager, RCFC ER, NMPB, JU. Mob. - 9007844777 2. Mr. Sudipto Ghosh, Assistant Project Manager Marketing, RCFC ER, NMPB, JU. Mob. - 8017172880	
Project Staff / Officials who accompanied during field visit(s): (names & designation) with mobile number		1. Swami Vasavananda Maharaj, Ex. Assistant Secretary, Ramakrishna Mission Ashrama, Narendrapur. Mob. - 8910877917 2. Dr Salil Kumar Gupta , Co-ordinator 8910864657	

Brief Description of the Implementing Agency:
The Ramakrishna Mission Ashrama, Narendrapur is a NGO, directly under Ramakrishna Math & Mission, Belur, is engaged for over 25 years in Medicinal Plant Sector of West Bengal and undertaking different Projects on Promotional and R & D Project aspects.
Type of project and approved objectives: Central sector Scheme for Conservation Development and Sustainable Management of Medicinal Plants

Objectives:

1. To produce quality planting material of medicinal plants following GACP of WHO with a target of producing mandated number of planting material per annum from 4 acres of land and make those available to the farmers to meet the local and national demands.
2. To conserve the true mother stocks of medicinal plants.
3. To increase the planting material of RET (Rare, Endangered, and Threatened) species of medicinal plants.
4. To maintain genetic purity and qualitative production.
5. To encourage growth of the medicinal plants sector.

Component of the Central Sector Scheme	Conservation Development and Sustainable Management of Medicinal Plants through "Production of Quality Planting Material of Medicinal Plants"		
Name of Principal Investigator (PI)	Swami Vasavananda	Phone / Mobile No.	8910877917
Contact Address	Ramakrishna Mission Ashrama, Narendrapur, Kolkata – 700103	Contact Details	rkmndp@gmail.com
Name of Co-PI	-	Phone / Mobile No.	-
Contact Address	-	Contact Details	-
Duration of the Project	5 Years	Project Start date	01/10/2017
Total Project Cost: INR 63,15,000.00			
Amount Sanctioned: INR 55,53,000.00		Total amount released: INR 55,13,823.00	Total amount Utilized: INR 43,92,329.00

Target and Achievement:
The project was implemented as per the target and accordingly physical achievement (production of 4 lakhs quality planting material per annum (4 lakhs X 5 years) = 20 lakhs) was achieved.

Table – Physical achievement

Sl. No.	Name of Quality Planting Material (QPM) of medicinal Plants produced	Scientific Name of the QPM species	No. of QPM species planted / Grown(Approx.)
1	Sarpagandha	*Rauvolfia serpentina*	2,790
2	Bramhi	*Bacopa monnieri*	46,00,500
3	Gulancha	*Tinospora cordifolia*	820
4	Ghritakumari	*Aloe vera*	4,000
5	Tulsi (Krishna)	*Ocimum tenuiflorum*	4,200
6	Shatamuli	*Asparagus racemosus*	3,750
7	Aswagandha	*Withania somnifera*	6,500
8	Kalmegh	*Andrographis paniculata*	7,300
9	Gol marich	*Piper nigrum*	800
10	Chandramula (Ekangi)	*Kaempferia galanga*	2,550
11	Amada	*Curcuma amada*	1,350
12	Halud	*Curcuma longa*	1,150
13	Bhuin Amla	*Phyllanthus niruri*	5,800
14	Pipul	*Piper longum*	13,900
15	Talmuli	*Curculigo orchioides*	1,900
			46,57,310

Table – Financial achievement

Financial Year/Period	Project Cost approved	Amount sanctioned	Amount utilized
2016-17	47,15,000.00	-	-
2016-17	16,00,000.00	-	-
2017-18	-	24,67,000.00	2,18,479.00
2018-19	-	-	9,58,086.00
2019-20	-	-	6,18,187.00
2020-21	-	11,62,000.00	9,37,954.00
2021-22	-	11,62,000.00	9,36,800.00
2022-23	-	-	-
2023-24	-	-	-
2024-25	-	7,62,000.00	7,22,823.00
Total	**63,15,000.00**	**55,53,000.00**	**43,92,329.00**

* As per documents provided by PIA a total of Rs. 11,76,057.00 including the accrued interest has been refunded to NMPB.

Longitude and Latitude of the area: Longitude: 22° 57" North Latitude: 88° 21" East
Whether the board of funding agency's name (NMPB) is installed (Yes or No): Yes
Whether the progress achieved as per approved objectives: The project achieved all the approved objectives.
Whether the signage board along with usage of medicinal plants is installed (Yes or No): Yes
Land / Area details (Approved area, covered area etc.): The QPM production nursery was established in 4 acres of land and achieved physical targets mentioned in the original proposal.

Status of the project (deliverable–wise) while making the Monitoring & Evaluation Visit (in detail along with photographs):

The project was successfully implemented in alignment with its core objectives. The evaluation team verified this through interactions with the Project Investigator and implementation staff, coupled with systematic observation and physical verification. The following details outline the activities completed, supported by photographic evidence

a. The Quality Planting Material nursery with mother stock was established in 4 acres of land and is still maintained by the organization after the completion of the project.
b. A total of 15 medicinal plant species were planted and are being maintained within the nursery.
c. Several Farmers and organizations were helped with this initiative.

List of Year-wise sapling distribution:

Financial Year 2020-2021

Sl. No.	Name of Quality Planting Material (QPM) of medicinal Plants produced	Scientific Name of the QPM species	Approx. No. of Saplings Supplied
1	Sarpagandha	*Rauvolfia serpentina*	100
2	Bramhi	*Bacopa monnieri*	10,00,000
3	Gulancha	*Tinospora cordifolia*	15
4	Ghritakumari	*Aloe vera*	400
5	Tulsi (Krishna)	*Ocimum tenuiflorum*	400
6	Shatamuli	*Asparagus racemosus*	300
7	Aswagandha	*Withania somnifera*	300
8	Kalmegh	*Andrographis paniculata*	500
9	Gol marich	*Piper nigrum*	50
10	Chandramula (Ekangi)	*Kaempferia galanga*	100
11	Amada	*Curcuma amada*	-
12	Halud	*Curcuma longa*	10
13	Bhuin Amla	*Phyllanthus niruri*	150
14	Pipul	*Piper longum*	300
15	Talmuli	*Curculigo orchioides*	150
Total			**10,02,775**

Financial Year 2021-2022

Sl. No.	Name of Quality Planting Material (QPM) of medicinal Plants produced	Scientific Name of the QPM species	Approx. No. of Saplings Supplied
1	Sarpagandha	*Rauvolfia serpentina*	50
2	Bramhi	*Bacopa monnieri*	12,00,000
3	Gulancha	*Tinospora cordifolia*	10
4	Ghritakumari	*Aloe vera*	450
5	Tulsi (Krishna)	*Ocimum tenuiflorum*	250
6	Shatamuli	*Asparagus racemosus*	250
7	Aswagandha	*Withania somnifera*	450
8	Kalmegh	*Andrographis paniculata*	250
9	Gol marich	*Piper nigrum*	150

10	Chandramula (Ekangi)	*Kaempferia galanga*	410
11	Amada	*Curcuma amada*	-
12	Halud	*Curcuma longa*	150
13	Bhuin Amla	*Phyllanthus niruri*	360
14	Pipul	*Piper longum*	500
15	Talmuli	*Curculigo orchioides*	290
Total			**12,03,570**

Financial Year 2022-2024

Sl. No.	Name of Quality Planting Material (QPM) of medicinal Plants produced	Scientific Name of the QPM species	Approx. No. of Saplings Supplied
1	Sarpagandha	*Rauvolfia serpentina*	15
2	Bramhi	*Bacopa monnieri*	10,00,000
3	Gulancha	*Tinospora cordifolia*	20
4	Ghritakumari	*Aloe vera*	650
5	Tulsi (Krishna)	*Ocimum tenuiflorum*	150
6	Shatamuli	*Asparagus racemosus*	200
7	Aswagandha	*Withania somnifera*	50
8	Kalmegh	*Andrographis paniculata*	50
9	Gol marich	*Piper nigrum*	100
10	Chandramula (Ekangi)	*Kaempferia galanga*	50
11	Amada	*Curcuma amada*	50
12	Halud	*Curcuma longa*	-
13	Bhuin Amla	*Phyllanthus niruri*	10
14	Pipul	*Piper longum*	100
15	Talmuli	*Curculigo orchioides*	100
Total			**10,01,545**

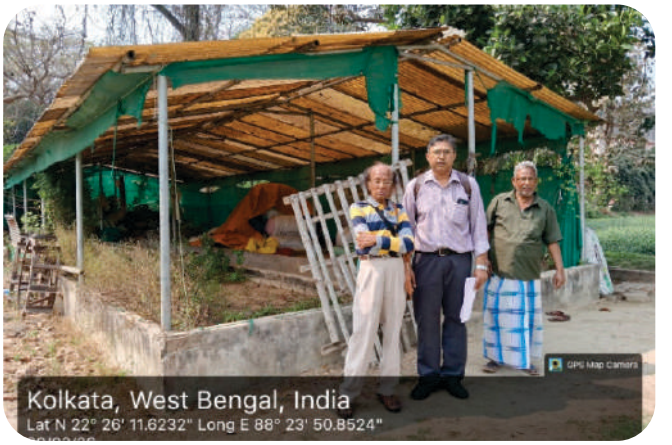
Financial Year 2024-2025

Sl. No.	Name of Quality Planting Material (QPM) of medicinal Plants produced	Scientific Name of the QPM species	Approx. No. of Saplings Supplied
1	Sarpagandha	*Rauvolfia serpentina*	50
2	Bramhi	*Bacopa monnieri*	20,00,000
3	Gulancha	*Tinospora cordifolia*	50
4	Ghritakumari	*Aloe vera*	500
5	Tulsi (Krishna)	*Ocimum tenuiflorum*	2,000
6	Shatamuli	*Asparagus racemosus*	100
7	Aswagandha	*Withania somnifera*	20
8	Kalmegh	*Andrographis paniculata*	500
9	Gol marich	*Piper nigrum*	20
10	Chandramula (Ekangi)	*Kaempferia galanga*	-
11	Amada	*Curcuma amada*	40

12	Halud	*Curcuma longa*	50
13	Bhuin Amla	*Phyllanthus niruri*	10
14	Pipul	*Piper longum*	200
15	Talmuli	*Curculigo orchioides*	50
		Total	**20,03,590**

* They have supplied only **5,03,640** only in the Financial year 2024-25 and the rest was kept with the Nursery for later supply.
Please find the list of Beneficiaries in the Annexure.

Overall Grading of the Project (Satisfactory / Not Satisfactory): Satisfactory	
Short coming, if any:	-
Recommendation & Suggestion :	The project activities were carried out quite effectively by achieving all the objectives. Hence, the project may be considered as complete in every aspect.




Kolkata, West Bengal, India


Kolkata, West Bengal, India


Rajpur Sonarpur, West Bengal, India

Annexure

List of Beneficiaries (as per data provided by PIA)

Financial Year 2020-2021

Sl. No.	Name	Date	Type of planting material
1	Unknown person	4.06.2020	Misc. medicinal plants
2	Dr. Rana Pratap Chatterjee (6294695519)	18.06.2020	Misc. medicinal plants
3	Rina Basu (9143296895)	26.06.2020	Misc. medicinal plants
4	Rina Basu (9143296895)	30.06.2020	Misc. medicinal plants
5	Mainak Chakrabarty	01.07.2020	Misc. medicinal plants
6	Rubi Ghosh (9735094346)	08.07.2020	Misc. medicinal plants
7	Heritage School (9830050664)	24.07.2020	Misc. medicinal plants
8	Kamal Nursery	07.08.2020	Misc. medicinal plants
9	Teikon India		Brahmi
10	Srirupa Sarkar, Calcutta University		Tulsi
11	M. Das	06.08.2020	Misc. medicinal plants
12	Gopal Das	19.08.2020	Misc. medicinal plants
13	Surajit Khan	22.08.2020	Misc. medicinal plants
14	V. Kumar (9163334660)	25.08.2020	Misc. medicinal plants
15	M. Das	25.08.2020	Misc. medicinal plants
16	G. Das	26.08.2020	Misc. medicinal plants
17	Nitai Chandra (9563222123)	28.08.2020	Misc. medicinal plants
18	Ratna Roy (8697352257)	04.09.2020	Misc. medicinal plants
19	Green	04.09.2020	Misc. medicinal plants
20	Director CARIDD	04.09.2020	Misc. medicinal plants
21	S. Basu	08.09.2020	Misc. medicinal plants
22	S. Ghosh	14.09.2020	Misc. medicinal plants
23	Ashoke Sardar	28.09.2020	Misc. medicinal plants
24	Director CARIDD	28.09.2020	Misc. medicinal plants
25	G.C. Das (877746645)	01.10.2020	Misc. medicinal plants
26	Dipankar Pramanik	05.10.2020	Misc. medicinal plants
27	G.C. Das	02.11.2020	Misc. medicinal plants
28	Arijit Bhadra	2.11.2020	Misc. medicinal plants
29	A. Chakrabarty	04.11.2020	Misc. medicinal plants
30	Sukumar Manik (9635832689)	05.11.2020	Misc. medicinal plants
31	G. C. Das	5.11.2020	Misc. medicinal plants
32	M. Rahaman	28.11.2020	Misc. medicinal plants
33	Subrata Mondal (7044654413)	01.12.2020	Misc. medicinal plants
34	Rita Mistry (9932905428)	01.12.2020	Misc. medicinal plants
35	Sankar Sarkar (9073870855)	09.12.2020	Misc. medicinal plants
36	Dr. Dipankar Pramanik (9681921696)	12.12.2020	Misc. medicinal plants
37	Shambhunath Purokait (7271720465)	12.12.2020	Misc. medicinal plants

38	Vedprachar Trust (9830064143)	29.12.2020	Misc. medicinal plants
39	Mita (Gosaba)	31.12.2020	Misc. medicinal plants
40	Unknown	06.01.2021	Misc. medicinal plants
41	S. Chatterjee (9748063183)	09.01.2021	Misc. medicinal plants
42	Suparna Mondal (858498223)	12.02.2021	Misc. medicinal plants
43	Pallyshree Limited (8335074524)	15.02.21	Misc. medicinal plants
44	Dr. Dipankar Pramanik	18.02.2021	Misc. medicinal plants
45	Ananya Chakrabarty (8910763369)	18.02.2021	Misc. medicinal plants
46	Dr. Sushmita Das (9477585471)	22.02.2021	Misc. medicinal plants
47	Mukulika Maity (7407408615)	26.02.2021	Misc. medicinal plants
48	Teikan	05.03.2021	Brahmi
49	S. Roy (9123617055)	17.03.2021	Misc. medicinal plants

Financial Year 2021-2022

Sl. No.	Name of Recipients	Date	Type of medicinal plants
1	Amit Ghosh, Puruliya	19.4.2021	Halud
2	Teikin Reeks India Pvt. Ltd., Barasat	17.6.2021	Bramhi
3	Anirban Adhikary	19.06.2021	Misc. Med. Plants
4	RKMA Hospital	26.06.2021	Aloe vera, Neem, Tulsi
5	Teikin Reeks India Pvt. Ltd., Barasat	03.07.2021	Bramhi
6	Q Pack, Madhyam Gram	03.07.2021	Bramhi
7	Sreerupa Sarkar, Calcutta University	13.07.2021	Tulsi
8	Debarati De, Arunachal Pradesh	16.07.2021	Misc. Med. plants
9	Sreerupa Sarkar, Calcutta University	19.07.2021	Tulsi
10	Gour Chandra Das, Nabadwip	20.07.2021	Aloe vera, Nani
11	Nutrite, Kolkata	23.07.2021	Misc. Med. plants
12	ATC, Fulia, Nadia	22.07.2021	Misc. Med. plants
13	Sreerupa Sarkar, Calcutta University	26.07.2021	Tulsi
14	Subrata Mondal	02.08.2021	Misc. Med. plants
15	Suman Midya	03.08.2021	Misc. Med. plants
16	Bidhan Pandey	04.08.2021	Misc. Med. plants
17	Santu Naskar	04.08.2021	Misc. Med. plants
18	Gour Chandra Das	07.08.2021	Misc. Med. plants
19	Sanjoy Choudhury	07.08.2021	Misc. Med. plants
20	Biswajit Ghosh	19.08.2021	Misc. Med. plants
21	Gour Chandra Ghosh	25.08.2021	Aloe vera
22	Nature N. Pots	26.08.2021	Misc. Med. plants
23	Rabindranath Ghosh	08.09.2021	Misc. Med. plants

24	Gour Chandra Ghosh	09.09.2021	Aloe vera
25	Sudipta Naskar	09.09.2021	Misc. Med. plants
26	Mukulika Maity	11.09.2021	Misc. Med. plants
27	Rupa Acharya	13.09.2021	Misc. Med. plants
28	Gour Chandra Das	13.09.2021	Aloe vera
29	Sahadeb Sarkar	27.09.2021	Aloe vera
30	Nature N. Pots	28.09.2021	Aloe vera
31	Goutam Ghosh	30.09.2021	Aloe vera
32	Nature N. Pots	04.10.2021	Aloe vera
33	Bhalotia College	05.10.2021	Misc. Med. plants
34	Arijit Bhadra	05.10.2021	Misc. Med. plants
35	Partha Bhattacharya	11.11.2021	Misc. Med. plants
36	Kakali Ghosh	18.11.2021	Misc. Med. plants
37	Kalyan Hazra	15.11.2021	Misc. Med. plants
38	Q- Pack Agro	25.11.2021	Bramhi
39	Mukulika Maity	01.12.2021	Bramhi
40	Subho Mazumdar	01.12.2021	Bramhi
41	Baradram	02.12.2021	Bramhi
42	S. Purkayastha	02.12.2021	Misc. Med. plants
43	Gour Chandra Das	04.12.2021	Misc. Med. plants
44	Somnath Ghosh	08.12.2021	Misc. Med. plants
45	Matiul Rahaman	18.12.2021	Misc. Med. plants
46	Dr. Dipankar Pramanik	23.12.2021	Misc. Med. plants
47	S. Purkayastha	10.01.2022	Misc. Med. plants
49	Shova Nursery	14.01.2022	Misc. Med. plants
50	Sri Kumar, Purba Medinipur	17.01.2022	Misc. Med. plants
51	Shova Nursery	19.01.2022	Misc. Med. plants
52	Dr. Animul Islam, 9836901930	19.01.2022	Misc. Med. plants
53	Ranjit De, 8420845910	21.01.2022	Misc. Med. plants
54	Nimai Bhandari	28.01.2022	Misc. Med. plants
55	Moumita Biswas, 8534339215	07.02.2022	Misc. Med. plants
56	Gobinda Midya, 9126981715	14.02.2022	Misc. Med. plants
57	Gour Chandra Das	17.02.2022	Misc. Med. plants
58	Q-Pack Agro	19.02.2022	Bramhi
59	RKMA, Hospital	19.02.2022	Aloe vera
60	Sukumar Mainak, 9635892639	23.02.2022	Misc. Med. plants
61	Debra Khudiram College, 9064026638	23.02.2022	Misc. Med. plants
62	Dr. Samarjit Ghatak, 9230502109	23.02.2022	Misc. Med. plants
63	Debojit Sarkar, Krishnanagar	08.03.2022	Misc. Med. plants
64	HRI, 9007460556	23.03.2022	Misc. Med. plants

Financial Year 2022-2024

SL No.	Name of Recipients	Date	Type of Medicinal Plants
1	Debajyoti Sarkar	07.04.2022	Brahmi
2	Rinakshi Bhunia	16.04.2022	Misc. Medicinal Plants
3	Gour Chandra Das	19.04.2022	Aloe vera
4	T.S. Thiazahajan	21.06.2022	Misc. Medicinal Plants
5	Atikur Rahaman	29.04.2022	Misc. Medicinal Plants
6	Gour Chandra Das	12.05.2022	Aloe vera
7	Prabodh Bhadra	01.06.2022	Misc. Medicinal Plants
8	Ashutosh Sarwakar	17.06.2022	Misc. Medicinal Plants
9	Dhruba Ganguly	20.06.2022	Misc. Medicinal Plants
10	Dipankar Pramanik	04.07.2022	Misc. Medicinal Plants
11	Dr. Biswajit Ghosh	06.07.2022	Misc. Medicinal Plants
12	Gour Chandra Das	07.07.2022	Misc. Medicinal Plants
13	Debasish Mondal	11.07.2022	Misc. Medicinal Plants
14	Sanjib Das	12.07.2022	Misc. Medicinal Plants
15	Ganges Jute (P) Ltd.	12.07.2022	Misc. Medicinal Plants
16	Dipankar Pramanik	18.07.2022	Misc. Medicinal Plants
17	R.K.M. Centenary College	04.08.2022	Misc. Medicinal Plants
18	Bappa Sekh	04.08.2022	Misc. Medicinal Plants
19	Anath Ghosh	05.08.2022	Misc. Medicinal Plants
20	Gour Chandra Das	08.08.2022	Misc. Medicinal Plants
21	Bappa Saha	18.08.2022	Misc. Medicinal Plants
22	Bappa Saha	10.09.2022	Misc. Medicinal Plants
23	WB UTTEPA	21.09.2022	Misc. Medicinal Plants
24	Gour Chandra Das	29.09.2022	Misc. Medicinal Plants
25	Dhruba Chandra Ganguly	19.10.2022	Misc. Medicinal Plants
26	Ayurvedic Hospital RKM	21.11.2022	Tulsi
27	KIR, GGDC	05.12.2022	Misc. Medicinal Plants
28	Prabodh Bhadra	19.01.2022	Misc. Medicinal Plants
29	Subhasis Das	01.02.2023	Misc. Medicinal Plants
30	Director, Central Ayurvedic Res. Instt.	01.02.2023	Misc. Medicinal Plants
31	Nature-N-Pol, Kolkata	04.02.2023	Misc. Medicinal Plants
32	Apurba Jana	04.02.2023	Misc. Medicinal Plants
33	R. Rashid	13.02.2023	Misc. Medicinal Plants
34	Partha Bhattacharya	13.02.2023	Misc. Medicinal Plants
35	Moumita Gangopadhyay	17.02.2023	Misc. Medicinal Plants
36	Sayantani Dutta	22.02.2023	Misc. Medicinal Plants
37	Nabakumar Mondal	24.02.2023	Misc. Medicinal Plants

38	Director, Central Ayurvedic Res. Instt.	26.02.2023	Misc. Medicinal Plants
39	Dhruba Chand Haldar	01.03.2023	Misc. Medicinal Plants
40	Sarada Harbal Centre, Gosaba	01.03.2023	Misc. Medicinal Plants
41	Moumita Sengupta	09.03.2023	Misc. Medicinal Plants
42	N. Das	09.03.2023	Misc. Medicinal Plants
43	Back to village	13.03.2023	Misc. Medicinal Plants
44	Ayurvedic Hospital	14.03.2023	Tulsi
45	Jamir Ali Molla	17.03.2023	Misc. Medicinal Plants
46	Prabir Samanta	24.03.2023	Misc. Medicinal Plants
47	Susmita Das	31.03.2023	Misc. Medicinal Plants
48	Ashok Sardar	31.03.2023	Misc. Medicinal Plants
49	Ayurvedic Hospital	31.03.2023	Tulsi

Financial Year 2024-2025

Sl No.	Names of the Recipients	Date(s)	Type of Medicinal Plants
1	Nutri Remedy, 41, Tewari para lane, Hooghly-712103	25.05.2024, 02.07.2024, 25.09.2024, 26.12.2024, 06.04.2025	Kulekhara, Tulsi, Ayapan, Vasak, Bhringaraj
2	Bengal Herbs, Laxminathpur, Murshidabad -742303	26.06.2024	Misc. plants
3	Branolia chemicals, Plot No-31, Kasba Industrial Estate, Kolkata-700107	15.05.2024, 31.07.2024, 03.12.2024, 03.03.2025, 30.08.2024	Bramhi
4	Surjit Sen	08.04.2024	Misc. Plants
5	Sunirmal Das	15.07.2024	Misc. Plants
6	Asish Adhikari	16.06.2024	Misc. Plants
7	Ruma Pal	25.07.2024, 02.08.2024, 12.08.2024	Misc. Plants
8	Anwar Sekh	09.08.2024	Misc. Plants
9	Nemai Bhandari	27.09.2024	Misc. Plants
10	Q-Pack Agro, Saheb Bagan, Ganganagar, Kolkata-700132	19.06.2024, 09.12.2024, 18.01.2025	Misc. Plants
11	Unknown	05.12.2024, 28.03.2025	Misc. Plants
12	Madhyamgram Kalpataru Welfare Society, Madhyamgram South Biresh Pally, Kolkata-700132	01.07.2024	Misc. Plants
13	Ramakrishna Math Naora, Vill – Naora, South 24 Pgs	06.07.2024	Misc. Plants

14	Prasanta Kr. Majumder	29.08.2024	Misc. Plants
15	Gour Chandra Das	29.08.2024	Misc. Plants
16	Herbochem, 10 Mushalman Para Road, Narendrapur, Kolkata-700103	03.09.2024, 12.11.2024, 08.12.2024	Misc. Plants
17	UBI, NDP	17.03.2025	Misc. Plants
18	Dinabandu Andrews College Garia, Kolkata	19.03.2025	Misc. Plants

Photographs from the PI's Archive


PROJECT ON PRODUCTION OF QUALITY
PLANTING MATERIAL FOR MEDICINAL PLANTS


একাঙ্গী
Kaempferia galanga
Fam. Zingiberaceae
ব্যবহার্য অংশ - কন্দ


Bacopa


Name of Project :
Production of Quality Planting Materials
(QPM) of Medicinal Plants
Name of organization operating the project
Ramakrishna Mission Ashrama, Narendrapur, Kolkata - 700 103
Medicinal Plants Research and Extn. Centre
Name of funding agency :
National Medicinal Plants Board, Ministry of AYUSH, Govt. of India
Duration of Project :
5 Years
Total allocation of fund :
Rs. 63.15 lakh


MEDICINAL PLANT GARDEN

Verification and Assessment Report

Monitoring & Evaluation of Project entitled "Establishment of Institutional Herbal Garden at All India Institute of Medical Sciences (AIIMS), Deoghar"

Project No.: Z.18017/187/CSS/HG/JR-01/2021-22-NMPB

Overall assessment of the projects
(First / ~~Second / Third~~ Verification Report)

State	Jharkhand	District	Deoghar
Project Title	"Establishment of Institutional Herbal Garden at All India Institute of Medical Sciences (AIIMS), Deoghar"		
Duration of Monitoring & Evaluation: Two days			
Date of Visit	07.03.2026	Date of report reparation	27.03.2026
Visiting Officials (Name with Mobile number)		1. Mr. Sudipto Ghosh, Assistant Project Manager Marketing, RCFC ER, NMPB, JU. Mob. - 8017172880	
Project Staff / Officials who accompanied during field visit(s): (names & designation) with mobile number		1. Dr. Harminder Singh, Dean Academics & HOD Pharmacology, AIIMS Deoghar, Jharkhand. Mob. – 7589012024 2. Dr. Subodh Kumar, Additional Professor, AIIMS Deoghar, Jharkhand. Mob. – 9560137157 3. Dr. Sumit Kumar Mahato, Assistant Professor, AIIMS Deoghar, Jharkhand. Mob. – 7004884905	
Brief Description of the Implementing Agency: All India Institute of Medical Sciences (AIIMS), Deoghar is a prestigious medical university and hospital located in Deoghar, Jharkhand, India. It is also one of the All India Institutes of Medical Sciences that started operation in 2019. All India Institute of Medical Sciences (AIIMS), Deoghar is the Institute of National importance, established by the Ministry of Health & Family Welfare, Government of India under the Pradhan Mantri Swasthya Suraksha Yojna (PMSSY) under Ministry of Health & Family Welfare.			
Type of project and approved objectives: Central sector Recurring Scheme Objectives: 1. To conserve some of the medicinal herbs that are at risk of extinction in the Jharkhand state. 2. To cultivate and promote medicinal plant for sustainable utilization. 3. To generate scientific data about the safety and efficacy of traditional medicines along with the department of AYUSH 4. To impart training on traditional medicine practices to faculty members and students (undergraduate and post graduate)			
Component of the Central Sector Scheme	Institutional Herbal Garden		
Name of Principal Investigator (PI)	Dr. Harminder Singh	Phone / Mobile No.	7589012024
Contact Address	AIIMS, Department of Pharmacology, Deoghar, Jharkhand - 814152	Contact Details	harminder.pharmacology@aiimsdeoghar.edu.in
Name of Co-PI			
Contact Address			
Duration of the Project	4 Years	Project Start date	14.03.2022
Total Project Cost: INR 3,84,000.00			
Amount Sanctioned: INR 3,84,000.00		Total amount released: INR 2,40,000.00	Total amount Utilized: INR 2,39,919.50

Target and Achievement:

The project was initially sanctioned by the National Medicinal Plants Board (NMPB) in December 2021, and the corresponding funds were released on 14th March 2022. However, due to certain unavoidable circumstances, the project could not be initiated within the stipulated timeframe. Consequently, the Principal Investigator (PI) submitted a request for extension of time to NMPB via email dated 15th September 2023.

Subsequently, the project activities gained momentum in 2024, and the physical and financial targets for the first year were achieved as per the approved plan. The Institutional Herbal Garden was inaugurated on 18th May 2025.

Sl. No.	Sanctioned/Heads	Target (Rs. in lakh)	Achievement (Rs. in lakh)
1.	Establishment of Institutional Herbal Garden (0.80 ha)	2,40,000.00	2,39,919.50
2.	Maintenance for 3 years	1,44,000.00	(yet to be released from NMPB)
Total		3,84,000.00	2,39,919.50

District: Deogarh

Name of Institute	**Latitude**	**Longitude**
All India Institute of Medical Sciences (AIIMS), Deogarh	24.44°N	86.61°E

Whether the board of funding agency's name (NMPB) is installed (Yes or No): Yes

Whether the progress achieved as per approved objectives: The project achieved all the approved objectives.

Whether the signage board along with usage of medicinal plants is installed (Yes or No): Although PIA installed the signage boards, in certain cases these have been partially or completely damaged due to natural calamities or lack of maintenance. Consequently, the PIA has been requested to reinstall these boards and undertake extensive clearing of weeds in the medicinal plants plots.

Land / Area details (Approved area, covered area etc.): The herbal garden has been established in 0.80 ha of land within AIIMS, Deogarh campus.

Status of the project (deliverable–wise) while making the Monitoring & Evaluation Visit (in detail along with photographs):

The project was successfully implemented in alignment with its core objectives. The evaluation team verified this through interactions with the Project Investigator and implementation staff, coupled with systematic observation and physical verification. The following details outline the activities completed, supported by photographic evidence

a. The herbal garden is located within the secured and fenced campus of the institute, and a primary signage board has been installed indicating the name of the funding agency.

b. A total of 15 medicinal plant species were planted and are being maintained within the designated garden area (refer to Table below).

c. Planting was carried out using appropriate horticultural and silvicultural techniques. This phase also included land development and the establishment of a water resource system.

d. Each medicinal plants are labeled with display boards featuring their botanical names as well as common names to foster awareness among students and stakeholders.

f. Various awareness activities were conducted to orient students on the practical applications and benefits of medicinal plants in patient treatment.

List of Medicinal Plants species for Institutional Herbal Garden

Sl. No.	**Botanical Name**	**Local name**	**Use(s)**
1.	*Ocimum tenuiflorum*	Tulsi	Immune and respiratory support
2.	*Azadirachta indica*	Neem	Antibacterial and antifungal properties
3.	*Bacopa monnieri*	Brahmi	Cognitive enhancement and stress relief
4.	*Mentha sp.*	Mint	Digestive aid and cooling effect
5.	*Trachyspermum ammi*	Ajwain	Digestive and respiratory health
6.	*Cymbopogon citratus*	Lemongrass	Anti-inflammatory and antimicrobial
7.	*Chlorophytum borivilianum*	Safed Musli	Vitality and reproductive health

8.	*Syzygium aromaticum*	Clove	Pain relief and antimicrobial
9.	*Elettaria cardamomum*	Cardamom	Digestive aid and breath freshener
10.	*Cinnamomum tamala*	Bay Leaf	Antioxidant and digestive support
11.	*Murraya koenigii*	Curry Leaf	Antioxidant and hair health
12.	*Rosmarinus officinalis*	Rosemary	Memory enhancement and anti-inflammatory
13.	*Asparagus racemosus*	Shatavari	Female reproductive health and immunity
14.	*Catharanthus roseus*	Sadabahar	Anticancer properties
15.	*Vitex negundo*	Nirgundi	Anti-arthritic and pain relief

Overall Grading of the Project (Satisfactory / Not Satisfactory): Satisfactory	
Short coming, if any:	-
Recommendation & Suggestion :	The project has been implemented in accordance with the approved proposal. It is recommended that regular maintenance and necessary follow-up care to be carried out as per the prescribed project schedule and emerging requirements to ensure the sustainability and long-term viability of the project. The intended objectives under the project have been successfully achieved. In view of the satisfactory progress, the project is hereby recommended for the release of the subsequent installment of funds.

Photographs during the field visit

Photographs from the PI archive

SECTION

10

OTHER ACTIVITIES

I. Provided information to NMPB, about Rajya Sabha provisionally admitted Starred Question Diary No. 5037, regarding “Herbs and Medicinal Plants”
II. Provided information to NMPB, regarding Rajya Sabha Provisionally Admitted Starred Question Diary No. 4404.
III. Provided information to NMPB, about Rajya Sabha Provisionally Unstarred Question Diary No. 2805, regarding “Medicinal Plant Processing Unit”
IV. Provided information to NMPB, about Rajya Sabha Unstarred Question No. 1766 regarding “Promoting cultivation of medicinal plants -- herbs and shrubs”
V. Provided information to NMPB, about Rajya Sabha Provisionally Admitted Unstarred Question No. 1776
VI. Provided information to NMPB regarding, Lok Sabha Admitted Unstarred Question No. + 3380 regarding “Raw Materials for Ayurvedic Medicines”
VII. Provided information to NMPB regarding, Lok Sabha Admitted Unstarred Question No. 3377 regarding “Ayurvedic Medicinal Plants in Forest”
VIII. Provided information to NMPB for Rajya Sabha Starred Diary No. 1134, regarding “Export of Medicinal plants and status of e-Charak 2.0 applications”
IX. Provided information to NMPB for Rajya Sabha Unstarred Admitted Question No. 161 regarding “Export of medicinal plants and status of e-CHARAK 2.0 applications”.
X. Provided information to NMPB for Rajya Sabha Provisionally Admitted Starred Dairy No. 501 regarding “Cultivation of AYUSH medicinal plants and promotion of pharmaceutical industry”.
XI. Provided information to NMPB for Lok Sabha Unstarred Admitted Question No. 976 regarding “Cultivation of Medicinal Plants”.
XII. Provided information to NMPB for Rajya Sabha Provisionally Admitted Unstarred Diary No. 170.
XIII. Provided information to NMPB for Rajya Sabha Provisionally Admitted Unstarred Questions Dairy No. 125 regarding “Special action plan to promote large-scale cultivation of traditional medicinal plants”.
XIV. Provided information to NMPB for Rajya Sabha Admitted Unstarred Question No. 971, regarding “Support to Odisha's tribal women and SHGs in cultivating medicinal products”.
XV. Provided information to NMPB for Lok Sabha Admitted unstarred Question No. 2113, regarding “Medicinal Plant Species in Gandharmardan Mountain Range”.
XVI. Provided compiled data to NMPB, regarding “One District, One Herb (ODOH)” for Jharkhand State.
XVII. Provided information to NMPB for Lok Sabha Admitted Unstarred Question No.1158 regarding “Cultivation of Medicinal Plants.
XVIII. Provided information to NMPB for Lok Sabha Starred Question D. No. 13010, regarding “Expansion and Cultivation of Medicinal Plants”.
XIX. Provided information to NMPB for Rajya Sabha Admitted Unstarred Question No. 2732 regarding “Conservation and cultivation of medicinal plants in tribal areas”.
XX. Provided information to NMPB for Lok Sabha Unstarred Questions Diary No. 14708 regarding “Financial Assistance for Cultivation Plants”.
XXI. Provided information to NMPB for Rajya Sabha Admitted Unstarred Question No. 3525 regarding “Cultivation of Medicinal plants in Odisha”.
XXII. Provided information to NMPB for Lok Sabha Unstarred Question Diary No. 18426 regarding “Implementation of Conservation Development of Medicinal Plants”.
XXIII. Provided information to NMPB for Lok Sabha Starred Question Diary No. 16024 regarding “Management of Medicinal Plants”

SECTION 11

HUMAN RESOURCES

Prof. Dr. Asis Mazumdar
PI cum Nodal Coordinator

Dr. Soumyajit Biswas
Project Manager

Mr. Sudipto Ghosh
Assistant Project Manager (Marketing)

Mr. Tushar Kanti Das
Project Consultant (Technical)

Mr. Shantanu Chakraborty
Project Consultant (Technical)

Ms. Priyanka Roy
Project Consultant (Technical)

Mr. Prasun Mukherjee
Project Consultant (Marketing)

Mr. Subodh Kumar
Project Assistant (Bihar)

Mr. Jyotiprakash Padhi
Project Assistant (Odisha)

Mr. Chandan Dey
Office Assistant

Mr. Meghnad Sardar
Attendant

SECTION 12

ANNEXURE - I

Annexure I

I. Data collected on medicinal plants cultivation for 334 farmers from Nadia district in West Bengal along with GPS tagging of their cultivation land.

Sl. No	Farmers Name	Crops Name	GPS Location (Latitude & Longitude)	Production in kg (Raw)	Production in kg (Dry)	Cultivated land (ha)
1	Hriday Dafadar	Ekangi	[23.369233] [88.484437] [23.368297] [88.482371] [23.369209] [88.484625] [23.36945] [88.484594]	2700	771.4	0.18
3	Baburali Sekh	Ekangi	[23.36881] [88.48343] [23.368932] [88.483565] [23.368312] [88.482376] [23.369317] [88.485913]	5100	1457.1	0.34
4	Antaj Dafadar	Ekangi	[23.369005] [88.486109] [23.369209] [88.486219] [23.369238] [88.486242] [23.369586] [88.486485]	9120	2605.7	0.62
5	Ratan Mondal	Ekangi	[23.388513] [88.601714] [23.369209] [88.486219] [23.388429] [88.60168] [23.388556] [88.601712]	5940	1697.1	0.40
6	Chittaranjan Biswas	Ekangi	[23.3687] [88.48323] [23.368912] [88.483545] [23.368323] [88.482389] [23.369325] [88.485909]	900	257.1	0.06
7	Sadhana Mandal	Ekangi	[23.388584] [88.601697] [23.388565] [88.601686] [23.388556] [88.601712] [23.388584] [88.601725]	4200	1200.0	0.28
8	Nikhil Mandal	Ekangi	[23.388624] [88.60107] [23.388372] [88.602763] [23.388325] [88.602755] [[23.388774] [88.60195]	1980	565.7	0.13
9	Aparna Mondal	Ekangi	[23.400731] [88.59713] [23.400771] [88.59719] [23.400799] [88.59721] [23.400852] [88.59723]	3960	1131.4	0.27
10	Jahema Mandal	Ekangi	[23.40013] [88.597136] [23.400771] [88.59719] [23.400799] [88.59721] [23.400852] [88.59723]	2700	771.4	0.18
11	Amit Ghosh	Ekangi	[23.388781] [88.601951] [23.388745] [88.601985] [23.388756] [88.601939] [23.388736] [88.601969]	3240	925.7	0.22
12	Ananda Biswas	Ekangi	[23.388798] [88.601945] [23.388742] [88.601995] [23.388723] [88.601953] [23.388712] [88.601955]	3600	1028.6	0.24
13	Sadhana Biswas	Ekangi	[23.387117] [88.602778] [23.387145] [88.602754] [23.387156] [88.602793] [23.387129] [88.602752]	12720	3634.3	0.86
14	minati Biswas	Ekangi	[23.385096] [88.602466] [23.385051] [88.602496] [23.385049] [88.602471] [23.385065] [88.602486]	1980	565.7	0.13

15	Bimal Sharma	Ekangi	[23.38507] [88.60246] [23.38503] [88.60249] [23.385029] [88.602493] [23.385045] [88.602497]	1200	342.9	0.08
16	Suphal Kumar Mondal	Ekangi	[23.388349] [88.60271] [23.388329] [88.60291] [23.388319] [88.602309] [23.388329] [88.60289]	720	205.7	0.05
17	Aniruddha Biswas	Ekangi	[23.38629] [88.602456] [23.38612] [88.602465] [23.38629] [88.602498] [23.38637] [88.602435]	1320	377.1	0.09
18	Bishnu Saha	Ekangi	[23.388789] [88.601955] [23.388752] [88.601974] [23.388747] [88.601969] [23.388728] [88.601985]	1980	565.7	0.13
19	Subhajit Sarkarl	Ekangi	[23.388774] [88.601958] [23.388751] [88.601976] [23.388749] [88.601985] [23.388729] [88.601999]	4080	1165.7	0.28
20	Sujit Biswas	Ekangi	[23.385093] [88.602462] [23.385056] [88.602474] [23.385055] [88.602483] [23.385054] [88.602482]	2520	720.0	0.17
21	Nabin Biswas	Ekangi	[2385312] [88.602469] [23.385036] [88.602486] [23.385054] [88.602496]	3960	1131.4	0.27
22	Sukumar Kundu	Ekangi	[23.387349] [88.602886] [23.387328] [88.602851] [23.387324] [88.602897] [23.387318] [88.602869]	1980	565.7	0.13
23	prasenjit Mandal	Ekangi	[23.388449] [88.60267] [23.388429] [88.60289] [23.388425] [88.60289] [23.388412] [88.60254]	1260	360.0	0.08
24	Sunil Haldar	Ekangi	[23.388356] [88.602775] [23.388339] [88.602798] [23.388323] [88.602745] [23.388326] [88.602755]	4200	1200.0	0.28
25	Arati Mandal	Ekangi	[23.388358] [88.602774] [23.388369] [88.602793] [23.388372] [88.602763] [23.388325] [88.602755]	900	257.1	0.06
26	Abhijit Mondal	Ekangi	[23.387135] [88.602745] [23.387175] [88.602785] [23.387136] [88.602789] [23.387112] [88.602796]	5940	1697.1	0.40
27	kalipad Mandal	Ekangi	[23.385321] [88.60245] [23.385045] [88.60245] [23.385086] [88.602496]	660	188.6	0.04
28	Haralal Biswas	Ekangi	[23.397923] [88.5969] [23.397856] [88.59369] [23397845] [88.593696] [23.397915] [88.59369]	840	240.0	0.06
29	Biplab Mandal	Ekangi	[23.3887699] [88.60168] [23.388709] [88.60171] [23.388686] [88.60171] [23.388645] [88.60168]	4200	1200.0	0.28

30	Sufal Mandal	Ekangi	[23.388627] [88.601275] [23.388609] [88.621296] [23.388651] [88.601238] [23.388651] [88.601265]	4200	1200.0	0.28
31	Bishwajit Mandal	Ekangi	[23.389585] [88.597405] [23.389574] [88.597419] [23.389545] [88.597423] [23.389512] [88.597436]	4080	1165.7	0.28
32	Sushanta Mandal	Ekangi	[23.388654] [88.601854] [23.388751] [88.601976] [23.388749] [88.601985] [23.388729] [88.601999]	1440	411.4	0.10
33	Arati Mandal	Ekangi	[23.388682] [88.601684] [23.388682] [88.601698] [23.388649] [88.601691] [23.388631] [88.601698]	1260	360.0	0.08
34	Sagar Biswas	Ekangi	[23.388702] [88.601693] [23.388702] [88.601701] [23.388699] [88.601699] [23.388697] [88.601650]	720	205.7	0.05
35	Nirmal Sarkar	Ekangi	[23.388687] [88.601215] [23.388645] [88.621278] [23.388628] [88.601239] [23.388672] [88.601287]	3600	1028.6	0.24
36	Mithun Mandal	Ekangi	[23.388657] [88.601645] [23.388649] [88.601675] [23.388612] [88.601675] [23.388611] [88.601686]	11820	3377.1	0.80
37	Bimal Biswas	Ekangi	[23.390917] [88.56089] [23.390932] [88.596369] [23.390957] [88.596023] [23.390909] [88.596081]	660	188.6	0.04
38	Anil Mandal	Ekangi	[23.388757] [88.601996] [2388734] [88.601999] [23.388723] [88.601995] [23.388718] [88.601899]	7200	2057.1	0.49
39	Rabul Mandal	Ekangi	[23.397937] [88.59363] [23.397899] [88.59368] [23397882] [88.593641] [23.397937] [88.59368]	3000	857.1	0.20
40	Shukurali Mandal	Ekangi	[23.390844] [88.596113] [23.390868] [88.596143] [23.390872] [88.596145] [23.390878] [88.596119]	4320	1234.3	0.29
41	Jakat Mandall	Ekangi	[23.390937] [88.56099] [23.390941] [88.596045] [23.390962] [88.596011] [23.390919] [88.596051]	1500	428.6	0.10
42	Sati Ghosh	Ekangi	[23.401567] [88.595326] [23.41569] [88.595363] [23.401555] [88.595326] [23.401589] [88.595369]	5940	1697.1	0.40
43	Anechhaddl Mandal	Ekangi	[23.387807] [88.5929] [23.387879] [88.595987] [23.38595987] [88.5959] [23.387801] [88.595981]	3960	1131.4	0.27
44	Jakir Hosen Mandal	Ekangi	[23.400839] [88.59713] [23.400799] [88.597105] [23.400860] [88.59170] [23.400891] [88.59165]	4860	1388.6	0.33

45	kartik Ghosh	Ekangi	[23.393347] [88.591403] [23.393335] [88.591439] [23.393358] [88.591456] [23.39329] [88.591412]	3360	960.0	0.23
46	Munchhur Mandal	Ekangi	[23.390834] [88.596123] [23.390852] [88.596147] [23.39042] [88.596137] [23.390852] [88.596145]	2100	600.0	0.14
47	Ayem Mandal	Ekangi	[23.393344] [88.591101] [23.393325] [88.591135] [23.393345] [88.591171] [23.393329] [88.591135]	1980	565.7	0.13
48	Injamaul Mandal	Ekangi	[23.390942] [88.596095] [23.39942] [88.596023] [23.390996] [88.596076] [23.390929] [88.596051]	540	154.3	0.04
49	Alim Mandal	Ekangi	[23.397942] [88.593642] [23.397912] [88.593623] [23.397919] [88.593625] [23.397945] [88.593681]	1980	565.7	0.13
50	Ajit Ghosh	Ekangi	[23.394472] [88.596413] [23.394453] [88.596459] [23.394485] [88.596478] [23.394496] [88.596449]	2640	754.3	0.18
51	Ramjan Mandal	Ekangi	[23.397917] [88.593676] [23.397956] [88.593692] [23.397947] [88.593678] [23.397955] [88.593642]	1320	377.1	0.09
52	Halim Mandal	Ekangi	[23.394871] [88.556708] [23.394896] [88.556736] [23.394898] [88.556774] [23.394839] [88.556719]	1980	565.7	0.13
53	Kasem Mandal	Ekangi	[23.393464] [88.593373] [23.393486] [88.593393] [23.393445] [88.593381] [23.393435] [88.593399]	5400	1542.9	0.36
54	Maluda Mandal	Ekangi	[23.400938] [88.59173] [23.400938] [88.59196] [23.400963] [88.59189] [23.400065] [88.59182]	1680	480.0	0.11
55	Miraj Madal	Ekangi	[23.395842] [88.592653] [23.395832] [88.592685] [23.395812] [88.592651] [23.395839] [88.592645]	4080	1165.7	0.28
56	Abuchiddik Mandal	Ekangi	[23.400893] [88.597149] [23.400874] [88.597119] [23.400887] [88.597135] [23.400915] [88.597125]	1860	531.4	0.13
57	Samchhur Mandal	Ekangi	[23.393312] [88.592301] [23.393365] [88.592347] [23.393345] [88.592385] [23.393395] [88.592365]	5400	1542.9	0.36
58	Anehur Mandal	Ekangi	[23.39538] [88.59562] [23.39565] [88.59596] [23.39512] [88.59574] [23.39541] [88.59545]	3960	1131.4	0.27
59	Abdul Mandal	Ekangi	[23.36339] [88.595321] [23.396372] [88.595354] [23.396325] [88.595375] [23.396356] [88.595373]	1680	480.0	0.11

60	Sahajan Mondal	Ekangi	[23.394717] [88.596145] [23.394732] [88.596154] [23.394729] [88.596156] [23.394713] [88.596136]	1980	565.7	0.13
61	Hasan Mondal	Ekangi	[23.385955] [88.596835] [23.85936] [88.596812] [23.385974] [88.596826] [23.385949] [88.596834]	1980	565.7	0.13
62	Mojam Mondal	Ekangi	[23.397943] [88.59366] [23.397981] [88.593651] [23.397912] [88.593697] [23.397981] [88.593676]	5940	1697.1	0.40
63	Haydar Mandal	Ekangi	[23.396344] [88.593733] [23.396384] [88.593723] [23.396364] [88.593765] [23.396379] [88.593799]	2040	582.9	0.14
64	Hamid Mandal	Ekangi	[23.400839] [88.597137] [23.400878] [88.597167] [23.400821] [88.597187] [23.400845] [88.597154]	3360	960.0	0.23
65	Anil Ghosh	Ekangi	[23.394886] [88.556078] [23.394897] [88.556024] [23.394849] [88.556096] [23.394871] [88.556081]	1740	497.1	0.12
66	Sukdeb Ghosh	Ekangi	[23.396358] [88.595326] [23.396375] [88.595311] [23.396333] [88.595326] [23.396339] [88.595372]	1980	565.7	0.13
67	Ehennabi Mandal	Ekangi	[23.400831] [88.59713] [23.400891] [88.59718] [23.400812] [88.59719] [23.400891] [88.59711]	1980	565.7	0.13
68	Ajoy Kumar Biswas	Ekangi	[23.384355] [86.602355][23.384575] [88.60254] [23.384745] [88.602658] [23.384689] [88.602321]	2700	771.4	0.18
69	Khudiram Mondal	Ekangi	[23.385575] [88.601025] [23.385571] [88.601121] [23.385423] [88.601213] [23.385325] [88.601354]	5100	1457.1	0.34
70	Suday Mandal	Ekangi	[23.385645] [88.600986] [23.385578] [88.600895] [23.385469] [88.600852] [23.385689] [88.600789]	9120	2605.7	0.62
71	Kaushik Mandal	Ekangi	[23.385607] [88.600983] [23.385526] [88.600865] [23.385475] [88.600895] [23.385987] [88.600801]	5940	1697.1	0.40
72	Kabita Mandal	Ekangi	[23.385609] [88.601019] [23.385521] [88.601235] [23.385467] [88.601698] [23.385456] [88.601759]	900	257.1	0.06
73	Alik Biswas	Ekangi	[23.385458] [88.601011] [23.385348] [88.601256] [23.3851248] [88.60115] [23.385478] [88.601458]	4200	1200.0	0.28
74	Nishith Biswas	Ekangi	[23.385727] [88.600933] [23.385658] [88.600899] [23.385699] [88.600856] [23.385687] [88.600786]	1980	565.7	0.13

75	Bijali Biswas	Ekangi	[23.386579] [88.601286] [23.386502] [88.601207] [23.386608] [88.601311] [23.386456] [88.601165]	3960	1131.4	0.27
76	Kripananda biswas	Ekangi	[23.386595] [88.601281] [23.386505] [88.601214] [23.386602] [88.601105] [23.386689] [88.601205]	2700	771.4	0.18
77	Tapan Mandal	Ekangi	[23.386585] [88.601736] [23.386455] [88.601858] [23.386575] [88.601954] [23.386475] [88.601856]	3240	925.7	0.22
78	Sushil Biswas	Ekangi	[23.386769] [88.602333] [23.386895] [88.602358] [23.386758] [88.602596] [23.386475] [88.602897]	3600	1028.6	0.24
79	Chittaranjan Biswas	Ekangi	[23.386831] [88.60287] [[23.393761] [88.59128] [23.395396] [88.591321] [23.393657] [88.591052]	12720	3634.3	0.86
80	Anup Biswas	Ekangi	[23.386842] [88.601070] [23.388613] [88.601096] [23.388609] [88.601076] [23.388612] [88.601089]	1980	565.7	0.13
81	Bidhan Biswas	Ekangi	[23.387393] [88.602811] [23.387365] [88'602841] [23.387399] [88.602856] [23.387381] [88.602847]	1200	342.9	0.08
82	Anup Mondal	Ekangi	[23.387393] [88.602804] [23.396511] [88.59250] [23.396475] [88.592185] [23.396547] [88.592445]	720	205.7	0.05
83	Ananda Mandal	Ekangi	[23.38743] [886.602787] [23.396327] [88.59228] [23.396299] [88.592245] [23.396395] [88.592385]	1320	377.1	0.09
84	Anitban Mandal	Ekangi	[23.387565] [88.602816] [23.387546] [88.602836] [23.387551] [88.602856] [23.387539] [88.602847]	1980	565.7	0.13
85	Utpal Biswas	Ekangi	[23.387626] [88..60286] [23.387646] [88.60289] [23.387612] [88.602888] [23.387656] [88.602878]	4080	1165.7	0.28
86	Shyamal Mondal	Ekangi	[23.388932] [88.503709] [23.388923] [88.503729] [23.388964] [88.503756] [23.388947] [88.503769]	2520	720.0	0.17
87	Dilip Biswas	Ekangi	[23.388921] [88.503712] [23.388912] [88.503742] [23.388909] [88.503782] [23.388901] [88.503796]	3960	1131.4	0.27
88	Gopal Biswas	Ekangi	[23.388512] [88.601724] [23.388508] [88.601756] [23.388523] [88.601739] [23.388529][88.601769]	1980	565.7	0.13
89	Chlnmoy Mandal	Ekangi	[23..388624] [88.60107] [23.388612] [88.601096] [23.388618] [88.601098] [23.388656] [88.601089]	1260	360.0	0.08

90	Shridam Mandal	Ekangi	[23.388541] [88.601662] [23.388565] [88.601696] [23.388541] [88.601653] [23.388541] [88.601689]	4200	1200.0	0.28
91	Jayanta Kumar Biswas	Ekangi	[23.394732] [88.596149] [23.394654] [88.596205] [23.394568] [88.596105] [23.396548] [88.596209]	900	257.1	0.06
92	Mahidul Mandal	Ekangi	[23.394744] [88.596143] [23.394521] [88.596122] [23.394658] [88.596245] [23.394785] [88.596145]	5940	1697.1	0.40
93	Sahanara Mandal	Ekangi	[23.396361] [88.592308] [23.396327] [88.592285] [23.396299] [88.592245] [23.396395] [88.592385]	660	188.6	0.04
94	Idrish Mondal	Ekangi	[23.396331] [88.592308] [23.396301] [88.592205] [23.396256] [88.592269] [23.396269] [88.592365]	840	240.0	0.06
95	Buddhishwar Mandal	Ekangi	[23.394732] [88.596149] [23.394674] [88.596205] [23.394568] [88.596155] [23.396748] [88.596249]	4200	1200.0	0.28
96	Uday Biswas	Ekangi	[23.394744] [88.596143] [23.394551] [88.596122] [23.394658] [88.596275] [23.394785] [88.596185]	4200	1200.0	0.28
97	Kalobari Mandal	Ekangi	[23.396331] [88.592308] [23.396241] [88.592504] [23.396475] [88.592165] [23.396577] [88.592395]	4080	1165.7	0.28
98	Jyotsna Ghatak	Ekangi	[23.396358] [88.595326] [23.396299] [88.595389] [23.396247] [88.595878] [23.396199] [88.595664]	1440	411.4	0.10
99	Samir Ghatak	Ekangi	[23.395767] [88.591185] [23.395696] [88.591251] [23.395741] [88.59105] [23.395601] [88.591275]	1260	360.0	0.08
100	Siddhartha Ghatak	Ekangi	[23.393347] [88.591403] [23.393781] [88.591288] [23.393396] [88.591321] [23.393657] [88.591322]	720	205.7	0.05
101	Sobera Mandal	Ekangi	[23.394732] [88.596149] [23.394664] [88.596215] [23.394578] [88.596105] [23.396548] [88.596219]	1980	1028.6	0.24
102	Gafur Mandal	Ekangi	[23.394749] [88.596144] [23.394167] [88.596245] [23.394288] [88.596698] [23.394206] [88.596567]	900	3377.1	0.80
103	Jayanti Biswas	Ekangi	[23.394744] [88.596143] [23.394561] [88.596182] [23.394628] [88.596245] [23.394785] [88.596135]	4200	188.6	0.04
104	Ajoy Mondal	Ekangi	[23.396331] [88.592308] [23.396511] [88.592504] [23.396475] [88.592185] [23.396547] [88.592445]	1980	2057.1	0.49

105	Mamtaj Mandal	Ekangi	[23.396398] [88.595346] [23.396289] [88.595398] [23.396247] [88.595848] [23.396199] [88.595684]	3960	857.1	0.20
106	Rangamala Biswas	Ekangi	[23.395767] [88.591185] [23.395966] [88.591211] [23.395701] [88.591915] [23.395641] [88.591285]	2700	1234.3	0.29
107	marjina Mandal	Ekangi	[23.393347] [88.591403] [23.393761] [88.591288] [23.395396] [88.591321] [23.393657] [88.591052]	3240	428.6	0.10
108	Madan Ghosh	Ekangi	[23.394744] [88.596143] [23.394571] [88.596132] [23.394698] [88.596245] [23.394785] [88.596149]	3600	1697.1	0.40
109	Mazida Mandal	Ekangi	[23.394732] [88.596149] [23.394674] [88.596205] [23.394568] [88.596125] [23.396648] [88.596209]	12720	1131.4	0.27
110	Manjura Mondal	Ekangi	[23.394749] [88.596144] [23.394197] [88.596275] [23.394298] [88.596658] [23.394206] [88.596447]	1980	1388.6	0.33
111	Omehara Biswas	Ekangi	[23.394744] [88.596143] [23.394561] [88.596142] [23.394698] [88.596245] [23.394785] [88.596145]	1200	960.0	0.23
112	Asadul Baddi	Ekangi	[23.396331] [88.592308] [23.396271] [88.592504] [23.396775] [88.592145] [23.396547] [88.592465]	720	600.0	0.14
113	Rajiba Baddi	Ekangi	[23.396358] [88.595326] [23.396279] [88.595598] [23.396247] [88.595978] [23.396159] [88.595654]	1320	565.7	0.13
114	Amina Mandal	Ekangi	[23.395767] [88.591185] [23.395696] [88.591241] [23.395771] [88.59105] [23.395601] [88.591255]	1980	154.3	0.04
115	Anil Ghosh	Ekangi	[23.393347] [88.591403] [23.393761] [88.591558] [23.393376] [88.591321] [23.393657] [88.591042]	4080	565.7	0.13
116	Fiddusi Mandal	Ekangi	[23.396361] [88.592308] [23.396627] [88.592285] [23.396299] [88.595285] [23.396295] [88.592308]	2520	754.3	0.18
117	Jafarsadek Mandal	Ekangi	[23.396331] [88.592308] [23.396351] [88.592405] [23.396276] [88.592269] [23.396269] [88.592365]	3960	377.1	0.09
118	Rojina Mondal	Ekangi	[23.388901] [88.600207] [23.388909] [88.600200] [23.388900] [88.600299] [23.388910] [88.600312]	1980	565.7	0.13
119	Arifa Mandal	Ekangi	[23.390139] [88.599787] [23.390130] [88.599780] [23.390333] [88.599777] [23.390312] [88.599712]	1260	1542.9	0.36

120	DILIP Biswas	Ekangi	[23.390003] [88.599787] [23.390012] [88.599777] [23.390033] [88.599770] [23.390013] [88.599720]	4200	480.0	0.11
121	Dharmadas Karmakar	Ekangi	[23.389579] [88.597807] [23.389570] [88.597812] [23.389581] [88.597820] [23.389580] [88.597821]	900	1165.7	0.28
122	Basanti Biswas	Ekangi	[23.396358] [88.595326] [23.396350] [88.595320] [23.396380] [88.595321] [23.396231] [88.595331]	5940	531.4	0.13
123	Monowara Mandal	Ekangi	[23.389364] [88.597805] [23.389360] [88.597810] [23.389369] [88.597885] [23.389356] [88.597812]	660	1542.9	0.36
124	Rahamat ali Mondal	Ekangi	[23.389773] [88.597475] [23.389757] [88.597470] [23.389770] [88.597478] [23.389725] [88.597458]	840	1131.4	0.27
125	Hazira khatun Mandal	Ekangi	[23.389737] [88.597475] [23.389730] [88.597440] [23.389730] [88.597473] [23.389775] [88.597489]	4200	480.0	0.11
126	Sanat Biswas	Ekangi	[23.389738] [88.597473] [23.389740] [88.597460] [23.389730] [88.597430] [23.389754] [88.597434]	4200	565.7	0.13
127	Bapi Tarafder	Ekangi	[23.388609] [88.60109] [23.388612] [88.60112] [23.388709] [88.60118] [23.388905] [88.60108]	4080	565.7	0.13
128	Alimahamm ad Mondal	Ekangi	[23.388613] [88.601099] [23.388618] [88.601088] [23.388603] [88.601099] [23.388509] [88.601192]	1440	1697.1	0.40
129	Dhirendrana th Mondal	Ekangi	[23.853944] [88.601066] [23.853948] [88.601688] [23.853940] [88.601853] [23.853941] [88.601067]	1260	582.9	0.14
130	Swapan Balo	Ekangi	[23.388767] [88.601066] [23.388760] [88.601069] [23.388769] [88.601059] [23.388807] [88.601156]	720	960.0	0.23
131	Balai Munirishi	Ekangi	[23.388549] [88.600853] [23.388504] [88.600806] [23.388508] [88.600809] [23.388555] [88.60808]	3600	497.1	0.12
132	Sukumar Biswas	Ekangi	[23.388901] [88.600207] [23.388959] [88.600200] [23.388900] [88.600269] [23.388710] [88.600312]	11820	565.7	0.13
133	Pradip Munirishi	Ekangi	[23.390139] [88.599787] [23.390140] [88.599780] [23.390333] [88.599767] [23.390312] [88.599722]	660	257.1	0.06
134	Anup Bhowmick	Ekangi	[23.389579] [88.597817] [23.389560] [88.597812] [23.389581] [88.597860] [23.389580] [88.597821]	7200	445.7	0.11

135	Dilip Biswas	Ekangi	[23.396358] [88.595326] [23.396360] [88.595330] [23.396380] [88.595361] [23.396431] [88.595331]	3000	1131.4	0.27
136	Subhadra Biswas	Ekangi	[23.388856] [88.601688] [23.388857] [88.601698] [23.388858] [88.601982] [23.388859] [88.601986]	4320	1371.4	0.32
137	Jaydeb Ghosh	Ekangi	[23.388856] [88.601688] [23.388867] [88.601698] [23.388858] [88.601972] [23.388869] [88.601986]	1500	257.1	0.06
138	Samir Karmakar	Ekangi	[23.388856] [88.601688] [23.388847] [88.601698] [23.388858] [88.601972] [23.388869] [88.601986]	5940	1131.4	0.27
139	Nirmal Ghosh	Ekangi	[23.394297] [88.597805] [23.394698] [88.594236] [23.394258] [88.597356] [23.394789] [88.597123]	3960	651.4	0.15
140	Anima Ghosh	Ekangi	[23.392749] [88.592364] [23.392740] [88.592360] [23.392768] [88.592356] [23.392756] [88.592367]	4860	925.7	0.22
141	Kishor Ghosh	Ekangi	[23.398846] [88.556087] [23.398847] [88.556062] [23.39879] [88.556001] [23.39883] [88.556092]	3360	205.7	0.05
142	Chabiya Mandal	Ekangi	[23.388625] [88.601678] [23.388626] [88.601679] [23.388627] [88.601676] [23.388628] [88.601675]	2100	565.7	0.13
143	Chameli Mondal	Ekangi	[23.88786] [88.601803] [23.88787] [88.601805] [23.88788] [88.601806] [23.88785] [88.601804]	1980	565.7	0.13
144	Resana Mandal	Ekangi	[23.388902] [88.601702] [23.388903] [88.601703] [23.388904] [88.601705] [23.388905] [88.601704]	540	1131.4	0.27
145	Anchhar Mandal	Ekangi	[23.388857] [88.601689] [23.388858] [88.601690] [23.388859] [88.6016891] [23.388856] [88.601692]	1980	771.4	0.18
146	Ajehar Mandal	Ekangi	[23.388609] [88.60109] [23.388612] [88.60112] [23.388719] [88.60118] [23.388905] [88.60128]	2640	925.7	0.22
147	Manju Mondal	Ekangi	[23.388625] [88.601678] [23.388616] [88.601679] [23.388627] [88.601696] [23.388628] [88.601575]	1320	1028.6	0.24
148	Nimai Mondal	Ekangi	[23.887816] [88.601103] [23.881767] [88.601705] [23.887198] [88.601816] [23.887815] [88.601804]	1980	3634.3	0.86
149	Dipak Biswas	Ekangi	[23.388902] [88.601702] [23.388933] [88.601713] [23.388504] [88.601705] [23.388905] [88.601804]	5400	565.7	0.13

150	Sushen Biswas	Ekangi	[23.388857] [88.601689] [23.388868] [88.601680] [23.388759] [88.601691] [23.388856] [88.601192]	1680	342.9	0.08
151	Sushil Biswas	Ekangi	[23.388856] [88.601688] [23.388867] [88.601658] [23.388858] [88.601972] [23.388879] [88.601986]	4080	205.7	0.05
152	Bipro Mondal	Ekangi	[23.388609] [88.601019] [23.388622] [88.601122] [23.388729] [88.601118] [23.388905] [88.601118]	1860	377.1	0.09
153	Sobita Mondal	Ekangi	[23.388613] [88.601099] [23.388628] [88.601068] [23.388603] [88.601089] [23.388509] [88.601192]	5400	565.7	0.13
154	Jagadish Mondal	Ekangi	[23.853944] [88.601066] [23.853938] [88.601688] [23.853940] [88.601843] [23.853931] [88.601067]	3960	1165.7	0.28
155	Nirupama Biswas	Ekangi	[23.388767] [88.601066] [23.388750] [88.601069] [23.388769] [88.601049] [23.388817] [88.601156]	1680	720.0	0.17
156	Sima Biswas	Ekangi	[23.388549] [88.600753] [23.388514] [88.600806] [23.388508] [88.600829] [23.388555] [88.601808]	1980	1131.4	0.27
157	Amal Biswas	Ekangi	[23.388901] [88.600207] [23.388919] [88.600210] [23.388900] [88.600299] [23.388920] [88.600312]	1980	565.7	0.13
158	Bidhan Dewan	Ekangi	[23.390139] [88.599787] [23.390120] [88.599780] [23.390333] [88.599767] [23.390322] [88.599712]	5940	360.0	0.08
159	Tapan Pramanick	Ekangi	[23.390003] [88.599787] [23.390022] [88.599767] [23.390033] [88.599780] [23.390023] [88.599720]	2040	1200.0	0.28
160	Sushama Biswas	Ekangi	[23.389589] [88.597807] [23.389570] [88.597912] [23.389581] [88.597820] [23.389580] [88.597851]	3360	257.1	0.06
161	Rojina Mondal	Ekangi	[23.396398] [88.595326] [23.396350] [88.595320] [23.396280] [88.595321] [23.396231] [88.595231]	1740	1697.1	0.40
162	Nandarani Saha	Ekangi	[23.389364] [88.597805] [23.389380] [88.597810] [23.389369] [88.597915] [23.389356] [88.597812]	1980	188.6	0.04
163	Biswajit Saha	Ekangi	[23.389873] [88.597475] [23.389757] [88.597470] [23.388770] [88.597478] [23.389725] [88.597438]	2530	240.0	0.06
164	Nitai Mandal	Ekangi	[23.389737] [88.597475] [23.389730] [88.597440] [23.389740] [88.597456] [23.389790] [88.597420]	2700	1200.0	0.28
165	Gour Mandal	Ekangi	[23.389728] [88.597473] [23.389750] [88.597460]	5100	1200.0	0.28

			[23.389730] [88.597430] [23.389754] [88.597834]			
166	Arupa Mandal	Ekangi	[23.389738] [88.597473] [23.389645] [88.597460] [23.389730] [88.597830] [23.389754] [88.597434]	9120	1165.7	0.28
167	Jasim Mandal	Ekangi	[23.388609] [88.601109] [23.388412] [88.601112] [23.388709] [88.601128] [23.388905] [88.611108]	5940	411.4	0.10
168	Zehera Mandal	Ekangi	[23.388613] [88.601099] [23.388628] [88.601088] [23.388603] [88.601089] [23.388509] [88.602192]	900	257.1	0.06
169	Israfil Mondal	Ekangi	[23.388767] [88.601066] [23.388760] [88.601069] [23.388779] [88.601769] [23.388807] [88.601156]	4200	1200.0	0.28
170	Fiddusi Mandal	Ekangi	[23.388549] [88.600853] [23.388404] [88.600816] [23.388508] [88.600809] [23.388555] [88.60708]	1980	565.7	0.13
171	Nazrul Mandal	Ekangi	[23.388901] [88.600207] [23.388719] [88.600200] [23.388900] [88.600499] [23.388910] [88.600312]	3960	1131.4	0.27
172	Nitai Mandal	Ekangi	[23.88776] [88.601803] [23.88767] [88.601805] [23.88788] [88.602806] [23.88785] [88.601804]	2700	771.4	0.18
173	Mihir Saha	Ekangi	[23.388902] [88.601502] [23.388903] [88.601703] [23.388904] [88.601705] [23.388965] [88.601704]	3240	925.7	0.22
174	Subhadra Biswas	Ekangi	[23.383804] [88.601380] [23.383906] [88.601389] [23.383928] [88.601389] [23.383809] [88.601390]	3600	1028.6	0.24
175	Ripan Talukdar	Ekangi	[23.2055] [88.931428] [23.20561] [88.931744] [23.205697] [88.931594] [23.206491] [88.938043]	12720	3634.3	0.86
176	Raja Kundu	Ekangi	[23.205299] [88.931527] [23.206223] [88.938101] [23.206236] [88.938081] [23.20623] [88.938114]	1980	565.7	0.13
177	Subhankar Sammadar	Ekangi	[23.203622] [88.936487] [23.203604] [88.936456] [23.20364] [88.936452] [23.203851] [88.936417]	1200	342.9	0.08
178	Sushil Ghosh	Ekangi	[23.314849] [88.945731] [23.205051] [88.935654] [23.205223] [88.935605] [23.205209] [88.935631]	720	205.7	0.05
179	Tapan Kr Ghosh	Ekangi	23.20672] [88.935388] [23.206762] [88.935423] [23.2068] [88.935423] [23.206856] [88.935399]	1320	377.1	0.09
180	Radheshyam Biswas	Ekangi	[23.208082] [88.93543] [23.207318] [88.935494] [23.207413] [88.935486] [23.207476] [88.935392]	1980	565.7	0.13

181	Arup Mandal	Ekangi	[23.207506] [88.935254] [23.207486] [88.935165] [23.207474] [88.933209] [23.207618] [88.934937]	4080	1165.7	0.28
182	Hrishikesh Ghosh	Ekangi	[23.207663] [88.934624] [23.207757] [88.934433] [23.207769] [88.934348] [23.207767] [88.93435]	2520	720.0	0.17
183	Gopal Dutta	Ekangi	[23.207742] [88.934358] [23.207656] [88.934394] [23.207497] [88.934244] [23.207507] [88.43956]	3960	1131.4	0.27
184	Joydeb Roy	Ekangi	[23.212881] [88.934714] [23.212889] [88.934726] [23.212798] [88.934718] [23.212811] [88.934693]	1980	565.7	0.13
185	Firoj Shekh	Ekangi	[23.201865] [88.934543] [23.201864] [88.93456] [23.202306] [88.93439] [23.12081] [88.934359]	1260	360.0	0.08
186	Supad Sarkar	Ekangi	[23.202234] [88.933875] [23.202253] [88.933869] [23.202522] [88.933494] [23.202557] [88.933555]	4200	1200.0	0.28
187	Bipad Sarkar	Ekangi	[23.2037] [88.932223] [23.203674] [88.93214] [23.203503] [88.93192] [23.20327] [88.931952]	900	257.1	0.06
188	Ratan Ghosh	Ekangi	[23.203265] [88.932062] [23.203207] [88.932067] [23.203139] [88.931965] [23.203225] [88.931937]	5940	1697.1	0.40
189	Sunil Ghosh	Ekangi	[23.202662] [88.931034] [23.202649] [88.931159] [23.202675] [88.930974] [23.202646] [88.930779]	660	188.6	0.04
190	Nikhil Ghosh	Ekangi	[23.202732] [88.930451] [23.202748] [88.930391] [23.202747] [88.930336] [23.202744] [88.930324]	840	240.0	0.06
191	Bhim Ghosh	Ekangi	[23.202075] [88.939338] [23.202066] [88.939324] [23.20227] [88.939402] [23.202257] [88.939365]	4200	1200.0	0.28
192	Suchitra Ghosh	Ekangi	[23.201793] [88.939715] [23.201751] [88.939704] [23.201786] [88.939468] [23.201786] [88.939468] [23.201792] [88.939395]	4200	1200.0	0.28
193	Sukumar Ghosh	Ekangi	[23.201275] [88.939748] [23.201224] [88.939706] [23.20114] [88.939764] [23.201087] [88.939783]	4080	1165.7	0.28
194	Akhil Ghosh	Ekangi	[23.201029] [88.930228] [23.201098] [88.930256] [23.20101] [88.930257] [23.201111][88.930256]	1440	411.4	0.10
195	Gobinda Ghosh	Ekangi	[23.201815] [88.930782] [23.201863] [88.930782] [23.201884] [88.930802] [23.201899] [88.93086]	1260	360.0	0.08

196	Jaydeb Mandal	Ekangi	[23.20327] [88.931077] [23.203255] [88.931086] [23.203281] [88.931122] [23.203282] [88.931125]	720	205.7	0.05
197	Rabindranath Mandal	Ekangi	[23.204117] [88.932024] [23.204131] [88.931995] [23.204186] [88.931998] [23.204205] [88.932042]	3600	1028.6	0.24
198	Aparna Ghosh	Ekangi	[23.205263] [88.933539] [23.205286][88.933533][23.205319] [88.933539] [23.205353] [88.933617]	11820	3377.1	0.80
199	Pravash Chandra Paul	Ekangi	[23.205766] [88.934177] [23.205746] [88.934166] [23.205765] [88.93444] [23.215659] [88.951582]	660	188.6	0.04
200	Adhir Haldar	Ekangi	[23.211708] [88.93825] [23.211596] [88.938305] [23.211292] [88.93835] [23.211273] [88.938353]	7200	2057.1	0.49
201	Arup Haldar	Ekangi	[23.212065] [88.939058] [23.212093] [88.939075] [23.212178] [88.939192] [23.21218] [88.939238]	3000	857.1	0.20
202	Swarup Haldar	Ekangi	[23.212412] [88.939108] [23.212405] [88.939062] [23.212218] [88.939274] [23.212186][88.939388]	4320	1234.3	0.29
203	Akshay Paul	Ekangi	[23.36594] [88.95999] [23.20659] [88.95989] [23.206634] [88.959896] [23.20671] [88.959839]	1500	428.6	0.10
204	Sagar Paul	Ekangi	[23.207228] [88.960421] [23.207244] [88.960447] [23.206914] [88.960454] [23.206864] [88.96012]	5940	1697.1	0.40
205	Milan Mandal	Ekangi	[23.207371] [88.961755] [23.207415] [88.961614] [23.207481] [88.961391] [23.207482] [88.961317]	3960	1131.4	0.27
206	Mrinmoy Mondal	Ekangi	[23.206493] [88.9615] [23.206439] [88.962757] [23.206615] [88.96285] [23.206719] [88.962847]	4860	1388.6	0.33
207	Shankar Sarkar	Ekangi	[23.206547] [88.962225] [23.206555] [88.962236] [23.206838] [88.962503] [23.206817] [88.96239]	3360	960.0	0.23
208	Lakshmibala Sarkar	Ekangi	[23.20512] [88.960251] [23.205166] [88.96025] [23.205374] [88.960234] [23.205445] [88.960213]	2100	600.0	0.14
209	Alok Saha	Ekangi	[23.204097] [88.960861] [23.2045] [88.960994] [23.204552] [88.961] [23.204559] [88.960969]	1980	565.7	0.13
210	Akshay Kr. Pramanik	Ekangi	[23.203823] [88.960113] [23.203815] [88.960238] [23.203801] [88.960605] [23.203796] [88.960628]	540	154.3	0.04

211	Amal Sarkar	Ekangi	[23.203276] [88.958558] [23.203336] [88.958641] [23.203435] [88.958794] [23.20352] [88.958882]	1980	565.7	0.13
212	Ramgopal Pramanik	Ekangi	[23.218158] [88.959473] [23.218061] [88.959748] [23.218071] [88.959764] [23.218096] [88.959852]	2640	754.3	0.18
213	Shambhu nath Sarkar	Ekangi	[23.218337] [88.96032] [23.218404] [88.96016] [23.21848] [88.960134] [23.21859] [88.960111]	1320	377.1	0.09
214	Jotsna Sarkar	Ekangi	[23.217158] [88.95994] [23.21719] [88.959708] [23.217204] [88.959625] [23.21725] [88.95944]	1980	565.7	0.13
215	Madhu Mondal	Ekangi	[23.217847] [88.961748] [23.21786] [88.961751] [23.217864] [88.961748] [23.217882] [88.961796]	5400	1542.9	0.36
216	Asim Karmakar	Ekangi	[23.927788] [88.962055] [23.218015] [88.962133] [23.217997] [88.962126] [23.218145] [88.962134]	1680	480.0	0.11
217	Ashok Biswas	Ekangi	[23.219021] [88.962992] [23.218718] [88.962939] [23.218682] [88.96295] [23.219183] [88.963067]	4080	1165.7	0.28
218	Ujjal Biswas	Ekangi	[23.219273] [88.962357] [23.219278] [88.962518] [23.219268] [88.962502] [23.21935] [88.962371]	1860	531.4	0.13
219	Chinmay Kr. Biswas	Ekangi	[23.21015] [88.962741] [23.20006] [88.962596] [23.200003] [88.962377] [23.219987] [88.962297]	5400	1542.9	0.36
220	Gobinda Biswas	Ekangi	[23.20008] [88.963385] [23.200089] [88.963328] [23.200079] [88.963222] [23.200093] [88.963501]	3960	1131.4	0.27
221	Goutam Biswas	Ekangi	[23.200618] [88.964376] [23.200482] [88.96435] [23.200643] [88.9644] [23.200647] [88.964437]	1680	480.0	0.11
222	Sujal Biswas	Ekangi	[23.200805] [88.965414] [23.200937] [88.965517] [23.201069] [88.96562] [23.201105] [88.965708]	1980	565.7	0.13
223	Hitanshu Sarkar	Ekangi	[23.201751] [88.966995] [23.201437] [88.966852] [23.201752] [88.96701] [23.201771] [88.967027	1980	565.7	0.13
224	Tapas Roy	Ekangi	[23.202367] [88.967971] [23.202592] [88.968111] [23.2026] [88.968108] [23.202602] [88.968102]	5940	1697.1	0.40
225	Tanmoy Roy	Ekangi	[23.202888] [88.967283] [23.202978] [88.967319] [23.20306] [88.967319] [23.203079] [88.967336]	2040	582.9	0.14

226	Shankar Roy	Ekangi	[23.20293] [88.966696] [23.20285] [88.966661] [23.202683] [88.966626] [23.202639] [88.966614]	3360	960.0	0.23
227	Kadar Ali Shekh	Ekangi	[23.202381] [88.966138] [23.20231] [88.966055] [23.20229] [88.966039] [23.20224] [88.965974]	1740	497.1	0.12
228	Narayan Mandal	Ekangi	[23.20182] [88.965071] [23.201835] [88.964976] [23.201847] [88.964842] [23.202] [88.964567]	1980	565.7	0.13
229	Champa Mandal	Ekangi	[23.201804] [88.963827] [23.201818] [87963718] [23.201802] [88.96367] [23.201849] [88.963565]	1980	565.7	0.13
230	Krishnapada Mandal	Ekangi	[23.201536] [88.962088] [23.201526] [88.962096] [23.201522] [88.962093] [23.201459] [88.962071]	2700	771.4	0.18
231	Bidyut Mahato	Ekangi	[23.200856] [88.961902] [23.200774] [88.961881] [23.200699] [88.961815] [23.200616] [88.961786]	5100	1457.1	0.34
232	Rajkumar Biswas	Ekangi	[23.200492] [88.521798] [23.200399] [88.521731] [23.20037] [88.521731] [23.20037] [88.52168] [23.201109] [88.520323]	9120	2605.7	0.62
233	Rabindranath Biswas	Ekangi	[23.200648] [88.519901] [23.200598] [88.519845] [23.200572] [88.519846] [23.200561] [88.519872]	5940	1697.1	0.40
234	Bikash Biswas	Ekangi	[23.219903] [88.51899] [23.219862] [88.518994] [23.219811] [88.518994] [23.219778] [88.518972]	900	257.1	0.06
235	Prokash Biswas	Ekangi	[23.219442] [88.518272] [23.219458] [88.518152] [23.219452] [88.518096] [23.21942] [88.517987]	4200	1200.0	0.28
236	Ashim Biswas	Ekangi	[23.216904] [88.51466] [23.217146] [88.514624] [23.217106] [88.514611] [23.216953] [88.514597]	1980	565.7	0.13
237	Sunita Das	Ekangi	[23.216708] [88.514768] [23.216531] [88.514886] [23.216482] [88.51485] [23.216459] [88.514828]	3960	1131.4	0.27
238	Santosh Das	Ekangi	[23.216439] [88.514787] [23.216408] [88.514753] [23.216214] [88.514783] [23.216175] [88.51478]	2700	771.4	0.18
239	Tentul Rajwar	Ekangi	[23.214658] [88.5486] [23.214661] [88.514812] [23.24635] [88.514734] [23.214754] [88.515051]	3240	925.7	0.22
240	Sukumar Adhikari	Ekangi	[23.214492] [88.515311] [23.2145] [88.515505] [23.214495] [88.515595] [23.214479] [88.515635]	3600	1028.6	0.24

241	Amar Sarkar	Ekangi	[23.213549] [88.515833] [23.213539] [88.515909] [23.213525] [88.516007] [23.213515] [88.516097]	12720	3634.3	0.86
242	Rupchand Das	Ekangi	[23.213188] [88.516125] [23.213227] [88.515936] [23.21323] [88.515892] [23.213225] [88.515872]	1980	565.7	0.13
243	Suman Adhikari	Ekangi	[23.213242] [88.51507] [23.213311] [88.515014] [23.213318] [88.514934] [23.213309] [88.514835]	1200	342.9	0.08
244	Khakan Adhikari	Ekangi	[23.215113] [88.515075] [23.215197] [88.515062] [23.215436] [88.515113] [23.215439] [88.515115]	720	205.7	0.05
245	Bijay Biswas	Ekangi	[23.216028] [88.515482] [23.216047] [88.515459] [23.216042] [88.515318] [23.216065] [88.55198]	1320	377.1	0.09
246	Sanatan Biswas	Ekangi	[23.201558] [88.518796] [23.201619] [88.518783] [23.201683] [88.518795] [23.201788] [88.51877]	1980	565.7	0.13
247	Shankar Pramanik	Ekangi	[23.202325] [88.518281] [23.202253] [88.51835] [23.202239] [88.518359] [23.202328] [88.518284]	4080	1165.7	0.28
248	Tapan Biswas	Ekangi	[23.211575] [88.517022] [23.217555] [88.516923] [23.217703] [88.516962] [23.21772] [88.517081]	2520	720.0	0.17
249	Parimal Mahato	Ekangi	[23.217783] [88.517091] [23.217798] [88.517008] [23.217791] [88.516887] [23.217779] [88.51682]	3960	1131.4	0.27
250	Kamal Mahato	Ekangi	[23.216251] [88.516204] [23.216213] [88.516052] [23.216291] [88.515908] [23.216317] [88.515813]	1980	565.7	0.13
251	Amal Mahato	Ekangi	[23.216805] [88.514736] [23.216806] [88.514688] [23.216824] [88.51463]	1260	360.0	0.08
252	Bidhan Mandal	Ekangi	[23.26581] [88.51453] [23.21654] [88.514666] [23.216516] [88.5144747] [23.216436] [88.514478]	4200	1200.0	0.28
253	Prashanta Adhikari	Ekangi	[23.216075] [88.514526] [23.216076] [88.514522] [23.21608] [88.514519] [23.21608] [88.514519]	900	257.1	0.06
254	Bikash Sarkar	Ekangi	[23.216699] [88.514114] [23.216549] [88.514058] [23.216444] [88.513834] [23.21656] [88.513802]	5940	1697.1	0.40
255	Krishnagopal Rajwar	Ekangi	[23.216653] [88.512927] [23.216568] [88.512923] [23.216553] [88.512908] [23.216526] [88.512875]	660	188.6	0.04

256	Kamalesh Karmakar	Ekangi	[23.217007] [88.512775] [23.216932] [88.512808] [23.21701] [88.512857] [23.217067] [88.512843]	840	240.0	0.06
257	Kalyani Karmakar	Ekangi	[23.217713] [88.512756] [23.217801] [88.512871] [23.217796] [88.512896] [23.217827] [88.513129]	4200	1200.0	0.28
258	Jashoda Mitra	Ekangi	[23.218546] [88.513805] [23.218588] [88.513767] [23.21874] [88.513491] [23.218621] [88.513422]	4200	1200.0	0.28
259	Jayanta Mitra	Ekangi	[23.218745] [88.513972] [23.218779] [88.513971] [23.218893] [88.513938] [23.218977] [88.513761]	4080	1165.7	0.28
260	Sudhir Mitra	Ekangi	[23.217478] [88.514493] [23.217418] [88.514449] [23.217353] [88.514496] [23.217346] [88.514444]	1440	411.4	0.10
261	Ripan Mitra	Ekangi	[23.217061] [88.515995] [23.21702] [88.515916] [23.216995] [88.515768] [23.217014] [88.51571]	1260	360.0	0.08
262	Bidyut Biswas	Ekangi	[23.21766] [88.515251] [23.21768] [88.515364] [23.217711] [88.515373] [23.217839] [88.515284]	720	205.7	0.05
263	Akhil Biswas	Ekangi	[23.217891] [88.515192] [23.21793] [88.515105] [23.218104] [88.515105] [23.218151] [88.515192]	3600	1028.6	0.24
264	Malati Mahato	Ekangi	[23.218153] [88.515948] [23.218247] [88.516002] [23.218298] [88.516094] [23.218891] [88.516196]	11820	3377.1	0.80
265	Kanika Biswas	Ekangi	[23.216777] [88.518701] [23.216771] [88.518717] [23.216745] [88.518727] [23.216673] [88.518753]	660	188.6	0.04
266	Narayan Biswas	Ekangi	[23.218882] [88.517915] [23.218163] [88.517926] [23.21826] [88.517927]	7200	2057.1	0.49
267	Raja Biswas	Ekangi	[23.211323] [88.519236] [23.211274] [88.519187] [23.211243] [88.519217] [23.211246] [88.518938]	3000	857.1	0.20
268	Ramananda Sarkar	Ekangi	[23.215067] [88.515809] [23.214736] [88.515335] [23.214726] [88.515301] [23.214709] [88.515241]	4320	1234.3	0.29
269	Pintu Biswas	Ekangi	[23.21413] [88.515604] [23.21405] [88.51562] [23.214038] [88.515607] [23.213988] [88.515467]	1500	428.6	0.10
270	Bipul sarkar	Ekangi	[23.214089] [88.51473] [23.21415] [88.51463] [23.214156] [88.514556] [23.214142] [88.514502]	5940	1697.1	0.40

271	Prasad Mahato	Ekangi	[23.214242] [88.514353] [23.21433] [88.514173] [23.21313] [88.514106] [23.214339] [88.513987]	3960	1131.4	0.27
272	Prassanna Mahato	Ekangi	[23.213533] [88.51389] [23.213526] [88.513932] [23.213459] [88.514002] [23.213404] [88.514071]	4860	1388.6	0.33
273	Tapas Mandal	Ekangi	[23.213521] [88.514352] [23.213514] [88.514395] [23.21341] [88.514393] [23.213423] [88.51441]	3360	960.0	0.23
274	Sanatan Rajeyar	Ekangi	[23.21372] [88.51519] [23.213643] [88.51478] [23.213663] [88.514794] [23.213625] [88.51861]	2100	600.0	0.14
275	Ranadip Mahato	Ekangi	[23.213754] [88.515152] [23.213749] [88.51544] [23.213749] [88.515444] [23.213858] [88.515489]	1980	565.7	0.13
276	Swapna Biswas	Ekangi	[23.213459] [88.515583] [23.213425] [88.515628] [23.213327] [88.515658] [23.2131] [88.515488]	540	154.3	0.04
277	Sumanta Biswas	Ekangi	[23.201575] [88.907696] [23.201691] [88.907792] [23.201732] [88.907777]	1980	565.7	0.13
278	Bholanath Biswas	Ekangi	[23.215211] [88.512596] [23.215208] [88.512609] [23.215194] [88.512559] [23.215142] [88.512608]	2640	754.3	0.18
279	Chameli Mahato	Ekangi	[23.214785] [88.513083] [23.215891] [88.519975] [23.214717] [88.51314] [23.214703] [88.513126]	1320	377.1	0.09
280	Ajit Mahato	Ekangi	[23.21482] [88.513039] [23.213475] [88.513069] [23.213458] [88.513099] [23.21347] [88.513121]	1980	565.7	0.13
281	Rabindranath Biswas	Ekangi	[23.213128] [88.512973] [23.21312] [88.512983] [23.213105] [88.513012] [23.21311] [88.513017]	5400	1542.9	0.36
282	Bijay Biswas	Ekangi	[23.212891] [88.515325] [23.21282] [88.515395] [23.212797] [88.515398] [23.212718] [88.515425]	1680	480.0	0.11
283	Kumaresh Biswas	Ekangi	[23.212702] [88.955416] [23.212661] [88.955435] [23.212619] [88.955474] [23.212476] [88.955445]	4080	1165.7	0.28
284	Gouranga Karmakar	Ekangi	[23.212877] [88.954942] [23.212904] [88.954986] [23.212903] [88.954964] [23.212914] [88.954936]	1860	531.4	0.13
285	Sanatan Rajowar	Ekangi	[23.212511] [88.954739] [23.212485] [88.954796] [23.212479] [88.95462] [23.21248] [88.954541]	5400	1542.9	0.36

286	Prasanna Rajowar	Ekangi	[23.212109] [88.954268] [23.212127] [88.95431] [23.212121] [88.954286] [23.212131] [88.954308]	3960	1131.4	0.27
287	Jatin Rajoar	Ekangi	[23.211958] [88.954602] [23.211933] [88.954703] [23.211856] [88.954755] [23.211848] [88.95484]	1680	480.0	0.11
288	Sadhan Karmakar	Ekangi	[23.211791] [88.955494] [23.211907] [88.955569] [23.213162] [88.955083] [23.213163] [88.955082]	1980	565.7	0.13
289	Ratan Chaki	Ekangi	[23.213173] [88.955085] [23.213196] [88.955193] [23.213175] [88.95522] [23.213189] [88.955317]	1980	565.7	0.13
290	Badal Mandal	Ekangi	[23.201912] [88.907884] [23.201968] [88.907865] [23.201991] [88.907832] [23.202059] [88.907748]	5940	1697.1	0.40
291	Bishnu pada Mandal	Ekangi	[23.213118] [88.954806] [23.213141] [88.954743] [23.213121] [88.954713] [23.213135] [88.954686]	2040	582.9	0.14
292	Sanjit Basu	Ekangi	[23.21346] [88.954285] [23.213492] [88.954251] [23.213438] [88.954254] [23.213392] [88.954219]	3360	960.0	0.23
293	Rehena Mandal	Ekangi	[23.213347] [88.954185] [23.213327] [88.95413] [23.213302] [88.954108] [23.213294] [88.95403]	1740	497.1	0.12
294	Amal Adhikari	Ekangi	[23.212766] [8795404] [23.212744] [88.54046] [23.212737] [88.954013] [23.212688] [88.953975]	1980	565.7	0.13
295	Bitika Biswas	Ekangi	[23.21271] [88.953673] [23.212732] [88.953634] [23.21276] [88.953653] [23.212814] [88.953662]	900	257.1	0.06
296	Ashit Biswas	Ekangi	[23.212877] [88.953699] [23.212833] [88.953556] [23.212806] [88.953542] [23.212776] [88.953527]	1560	445.7	0.11
297	Paresh Ch Roy	Ekangi	[23.213742] [88.95366] [23.213726] [88.953619] [23.213688] [88.953501] [23.213652] [88.953448]	3960	1131.4	0.27
298	Mithun Chaki	Ekangi	[23.213317] [88.953395] [23.213249] [88.953403] [23.213161] [88.953409] [23.213019] [88.95337]	4800	1371.4	0.32
299	Ramen Chaki	Ekangi	[23.212617] [88.953196] [23.212578] [88.953213] [23.212552] [88.953284] [23.212537] [88.953311]	900	257.1	0.06
300	Ramen Sarkar	Ekangi	[23.212546] [88.953016] [23.2126] [88.953029] [23.212604] [88.953037] [23.212636] [88.953092]	3960	1131.4	0.27

301	Ratna Roy	Ekangi	[23.212703] [88.952834] [23.21268] [88.95284] [23.21261] [88.952868] [23.21566] [88.952854]	2280	651.4	0.15
302	Kumaresh Roy	Ekangi	[23.212544] [88.952819] [23.212526] [88.952808] [23.212496] [88.952762] [23.212498] [88.952725]	3240	925.7	0.22
303	Shyamali Rajowar	Ekangi	[23.212637] [88.952658] [23.212629] [88.952631] [23.212647] [88.952637] [23.212659] [88.952578]	720	205.7	0.05
304	Shankar Rajowar	Ekangi	[23.212766] [88.952508] [23.212738] [88.952506] [23.212756] [88.952361] [23.21275] [88.952305]	1980	565.7	0.13
305	Subhash Ghosh	Ekangi	[23.397566] [88.605585] [23.397566] [88.605585] [23.399598] [88.598131] [23.399598] [88.598132]	1980	565.7	0.13
306	Manu Ghosh	Ekangi	[23.397561] [88.605581] [23.397562] [88.605582] [23.399593] [88.598133] [23.399594] [88.598134]	3960	1131.4	0.27
307	Rubi Ghosh	Ekangi	[23.397565] [88.605584] [23.397567] [88.605583] [23.399594] [88.598139] [23.399599] [88.598134]	2700	771.4	0.18
308	Depak Haldar	Ekangi	[23.397568] [88.605589] [23.397560] [88.605583] [23.399594] [88.598134] [23.399590] [88.598132]	3240	925.7	0.22
309	Gaffar Mandal	Ekangi	[23.399517] [88.598083] [23.399555] [88.598149] [23.399684] [88.598179] [23.399816] [88.598004]	3600	1028.6	0.24
310	Bapijul Mandal	Ekangi	[23.39959] [88.598088] [23.399557] [88.598143] [23.399689] [88.598174] [23.399819] [88.598003]	12720	3634.3	0.86
311	Sahabuddin Mondal	Ekangi	[23.399519] [88.598087] [23.399559] [88.598144] [23.399688] [88.598170] [23.399814] [88.598008]	1980	565.7	0.13
312	Amin Mondal	Ekangi	[23.399519] [88.598084] [23.399559] [88.598148] [23.399683] [88.598177] [23.399818] [88.598007]	1200	342.9	0.08
313	Haran Mondal	Ekangi	[23.399816] [88.598004] [23.399643] [88.597995] [23.399232] [88.598054] [23.399041] [88.597995]	720	205.7	0.05
314	Ajad Daptari	Ekangi	[23.399819] [88.598003] [23.399647] [88.597990] [23.399235] [88.598058] [23.399047] [88.597998]	1320	377.1	0.09
315	Kitab Mandal	Ekangi	[23.399815] [88.598008] [23.399644] [88.597999] [23.399231] [88.598055] [23.399046] [88.597998]	1980	565.7	0.13

316	Depak Haldar	Ekangi	[23.399817] [88.598003] [23.399648] [88.597999] [23.399237] [88.598056] [23.399048] [88.597998]	4080	1165.7	0.28
317	Sahen Mondal	Ekangi	[23.399401] [88.597995] [23.399062] [88.597874] [23.399062] [88.597874] [23.398972] [88.597958]	2520	720.0	0.17
318	Subhash Ghosh	Ekangi	[23.399409] [88.597998] [23.399068] [88.597879] [23.399066] [88.597873] [23.398971] [88.597956]	3960	1131.4	0.27
319	Haran Mondal	Ekangi	[23.399407] [88.597993] [23.399064] [88.597875] [23.399064] [88.597873] [23.398976] [88.597955]	1980	565.7	0.13
320	Sahabuddin Mondal	Ekangi	[23.399486] [88.597994] [23.399064] [88.597873] [23.399068] [88.597875] [23.398977] [88.597955]	1260	360.0	0.08
321	Ajad Daptari	Ekangi	[23.398959] [88.597773] [23.398967] [88.59775] [23.398967] [88.59775] [23.398876] [88.597757]	4200	1200.0	0.28
322	Kitab Mondal	Ekangi	[23.398955] [88.597775] [23.398963] [88.59773] [23.398968] [88.59773] [23.398873] [88.597752]	900	257.1	0.06
323	Kartick Chandra Ghosh	Ekangi	[23.398952] [88.597772] [23.398962] [88.59771] [23.398961] [88.59776] [23.398871] [88.597755]	5940	1697.1	0.40
324	Anil Ghosh	Ekangi	[23.398954] [88.597774] [23.398965] [88.59773] [23.398963] [88.59774] [23.398873] [88.597753]	660	188.6	0.04
325	Jalkir Hosen Mondal	Ekangi	[23.398663] [88.597333] [23.398606] [88.597204] [23.398423] [88.597105] [23.398423] [88.597105]	840	240.0	0.06
326	Hafijur Mandal	Ekangi	[23.398665] [88.597335] [23.398603] [88.597203] [23.398425] [88.597102] [23.398424] [88.597107]	4200	1200.0	0.28
327	Abdul Hamid Mondal	Ekangi	[23.398666] [88.597336] [23.398604] [88.597203] [23.398426] [88.597104 [23.398428] [88.597106]	4200	1200.0	0.28
328	Siraj Mondal	Ekangi	[23.398667] [88.597335] [23.398606] [88.597206] [23.398426] [88.597106] [23.398425] [88.597103]	4080	1165.7	0.28
329	Rashidul Mondal	Ekangi	[23.398342] [88.597324] [23.398342] [88.59732] [23.398336] [88.597104] [23.398171] [88.597096]	1440	411.4	0.10
330	Birendra Nath Paul	Potol Panchang	[22.982998] [88.50442] [22.982997[[88.50445] [22.982898] [88.50501] [22.982992] [88.50447]	20000	2000	0.20

331	Narayan Ghosh	Potol Panchang	[22.981663] [88.50467] [22.981668] [88.50489] [22.981701] [88.50492] [22.981667] [88.50472]	12000	1200	0.12
332	Mahadeb Ch paul	Alovera	[22.983159] [88.504136] [22.983201] [88.504175] [22.983167] [88.504152] [22.983161] [88.504181]	90000	Na	0.40
333	Manik Lal Biswas	Potol Panchang	[22.979812] [88.498914] [22.979775] [88.498844] [22.979654] [88.498926] [22.979850] [88.498930]	40000	4000	0.40
334	Asit Biswas	Potol Panchang	[22.980016] [88.49923] [22.980025] [88.49950] [22.980008] [88.49857] [22.980032] [88.49987]	12000	1200	0.12
			Total	**1210930**	**301765.71**	**70.51**

II. Data collected on medicinal plants cultivation for 36 farmers from Vaishali, Samastipur, Darbhanga, Saran, Muzaffarpur, Jamui, Kaimur in Bihar along with GPS tagging of their cultivation land.

Sl. No	Farmers Name	District	Crops Name	GPS Location (Latitude & Longitude)	Production in kg (Raw)	Production in kg (Dry)	Cultivated land (ha)
1	Hemant Soni	Vaishali	Kalmegh	[25.659217] [85.539939] [25.661217] [85.540986] [25.660714] [85.538333] [25.662064] [85.538875]	60000	15000	4.05
2	Payal Somani	Vaishali	Tulsi	[25.648597] [85.499539] [25.645803] [85.499647] [25.645797] [85.501258] [25.648697] [85.500839]	80000	16000	4.86
3	Ashish Kumar Somani	Vaishali	Brahmi	[25.640275] [85.498981] [25.640083] [85.499836] [25.639881] [85.499772] [25.640083] [85.498936]	Not yet harvested	Not yet harvested	0.20
4	Hanuman Prasad	Vaishali	Bhringraj	[25.650628] [85.600039] [25.650528] [85.599586] [25.649942] [85.599236] [25.649708] [85.599694]	400	100	0.04
5	Ram Kumar	Vaishali	Kalihari	[25.639844] [85.489250] [25.639589] [85.490358] [25.637956] [85.489969] [25.638142] [85.488831]	100	25	0.20
6	Dinesh Paswan	Vaishali	Tulsi	[25.630136] [85.478739] [25.629706] [85.479956] [25.628322] [85.479114] [25.628603] [85.478186]	25000	5000	2.02
7	Raj Balabh ji	Vaishali	Kalmegh	[25.630481] [85.498158] [25.630014] [85.499703] [25.631272] [85.500244] [25.631658] [85.498328]	42000	8400	2.83

8	Dr. Sunil Singh	Samastipur	Kalmegh	[25.769192] [86.038458] [25.768606] [86.040283] [25.767381] [86.040161] [25.768050] [86.037639]	30000	7000	3.24
9	Foolender Singh	Samastipur	Kalmegh	[25.760378] [86.029669] [25.760014] [86.030850] [25.758683] [86.030608] [25.758947] [86.029300]	25000	6000	2.02
10	Thakur Prasad Ray	Samastipur	Bhringraj	[25.700344] [85.639700] [25.700258] [85.640008] [25.700106] [85.639611] [25.700053] [85.639981]	400	100	0.04
			Kalmegh	[25.700344] [85.639700] [25.700258] [85.640008] [25.700106] [85.639611] [25.700053] [85.639981]	8000	2000	0.40
11	Laltu Ray	Samastipur	Tulsi	[25.699750] [85.630483] [25.699883] [85.629383] [25.699569] [85.629319] [25.699433] [85.630408]	7500	1500	0.40
12	Subhash Tiwari	Samastipur	Kalmegh	[25.664239] [85.688894] [25.660489] [85.694311] [25.659944] [85.694147] [25.663458] [85.688525]	900	900	5.67
			Chia Seed	[25.664239] [85.688894] [25.660489] [85.694311] [25.659944] [85.694147] [25.663458] [85.688525]	4000	4000	4.45
13	Dharmendra	Samastipur	Kalmegh	[25.770367] [86.039356] [25.770303] [86.037572] [25.772350] [86.037914] [25.772175] [86.040069]	Not yet harvested	Not yet harvested	4.05
			Chia Seed	[25.770367] [86.039356] [25.770303] [86.037572] [25.772350] [86.037914] [25.772175] [86.040069]	1500	1500	4.05
14	Mr Surendra Pandey	Samastipur	Kalmegh	[25.680592] [85.569836] [25.680400] [85.570553] [25.680019] [85.569656] [25.679828] [85.570333]	Not yet harvested	Not yet harvested	0.40
15	Mr Sintu	Darbhanga	Kalmegh	25.780200] [86.340769] [25.779900] [86.340778] [25.779944] [86.339644] [25.780267] [86.339672]	Not yet harvested	Not yet harvested	0.40
16	Mr. Kanhaiya	Saran	Tulsi	[26.069997] [84.879958] [26.069964] [84.881303] [26.070942] [84.881278] [26.071025] [84.879425]	6000	1200	0.81

17	Mr. Sohan	Saran	Tulsi	[26.059822] [84.869347] [26.060442] [84.869489] [26.060353] [84.870128] [26.059878] [84.870036]	3000	650	0.40
18	Mr. Ram	Saran	Tulsi	[26.080333] [84.859739] [26.080228] [84.860219] [26.079247] [84.859636] [26.079083] [84.860269]	4000	800	0.81
19	Mr Ayush Sheel	Muzaffarpur	Kalmegh	[26.180606] [85.488972] [26.180106] [85.488608] [26.179100] [85.490408] [26.179883] [85.490681]	Not yet harvested	Not yet harvested	1.62
20	Mr. Subodh	Muzaffarpur	Kalmegh	[26.030897] [85.138858] [26.030700] [85.139603] [26.029900] [85.138522] [26.029694] [85.139375	Not yet harvested	Not yet harvested	0.81
21	Mr. Shrikant	Muzaffarpur	Kalmegh	[26.049644] [85.159708] [26.049547] [85.160228] [26.050242] [85.160383] [26.050342] [85.159944]	Not yet harvested	Not yet harvested	0.40
22	Mr Sandeep	Muzaffarpur	Kalmegh	[26.050708] [85.169278] [26.050642] [85.170311] [26.049581] [85.170144] [26.049836] [85.169111]	Not yet harvested	Not yet harvested	1.21
23	Mr. Ramanand	Jamui	Kalmegh	[24.569319] [86.522369] [24.567806] [86.522275] [24.568317] [86.520639] [24.569481] [86.521661]	Not yet harvested	Not yet harvested	2.02
			Kaunch	[24.569319] [86.522369] [24.567806] [86.522275] [24.568317] [86.520639] [24.569481] [86.521661]	Not yet harvested	Not yet harvested	0.81
24	Shankar Yadav	Kaimur	Kalmegh	[24.679644] [83.599908] [24.679981] [83.600269] [24.680239] [83.600058] [24.680047] [83.599694]	Not yet harvested	Not yet harvested	0.20
25	Suresh Singh	Kaimur	Kaunch	[24.659617] [83.600217] [24.660200] [83.600311] [24.660331] [83.599733] [24.659836] [83.599636]	Not yet harvested	Not yet harvested	0.40
26	Mr. Deonandan Besra	Jamui	Chia Seed	[24.768644] [86.372231] [24.768472] [86.372817] [24.767639] [86.372022] [24.767739] [86.372553]	400	400	0.53
27	Mr. Durgesh	Jamui	Chia Seed	[24.758972] [86.299519] [24.759492] [86.299786] [24.759264] [86.300639] [24.759492] [86.299786]	500	500	0.67

28	Mr. Ashok Kumar Singh	Jamui	Chia Seed	[24.733719] [86.300864] [24.733436] [86.300881] [24.734089] [86.301833] [24.733614] [86.301975]	300	300	0.57
29	Mr. Navin Kumar Singh	Jamui	Chia Seed	[24.709761] [86.299819] [24.710514] [86.300094] [24.710661] [86.299694] [24.709917] [86.299419]	300	300	0.40
30	Mr. Shambhu Sharan Singh	Jamui	Chia Seed	[25.049831] [86.079356] [25.049578] [86.080017] [25.050067] [86.080181] [25.050239] [86.079461]	300	300	0.40
31	Mr Sanjeev Singh	Jamui	Chia Seed	[24.980392] [86.379056] [24.980019] [86.380078] [24.980839] [86.380525] [24.981225] [86.379375]	900	900	0.57
32	Mr. Sharvan Chaurasia	Samastipur	Chia Seed	[24.899989] [86.299308] [24.900050] [86.300517] [24.899114] [86.300383] [24.899153] [86.299831]	699	699	0.94
33	Mr Arun Chaudhary	Samastipur	Chia Seed	[26.691358] [84.639961] [26.691167] [84.640422] [26.690947] [84.639647] [26.690761] [84.640067]	150	150	0.20
34	Mr Sitaram Chaudhary	Samastipur	Chia Seed	[25.700344] [85.639700] [25.700258] [85.640008] [25.700106] [85.639611] [25.700053] [85.639981]	150	150	0.20
35	Mr Shambhu	Darbhanga	Chia Seed	[25.780200] [86.340769] [25.779900] [86.340778] [25.779944] [86.339644] [25.780267] [86.339672]	150	150	0.94
36	Sanjay Chaudhary	Samastipur	Chia Seed	[25.710961] [85.640925] [25.711028] [85.640208] [25.711283] [85.640228] [25.711292] [85.640900]	150	150	0.20
						Total	**54.43**

For more information please contact :

Prof. (Dr.) Asis Mazumdar
PI-cum-Nodal Coordinator

Dr. Soumyajit Biswas
Project Manager

Regional-cum-Facilitation Centre, Eastern Region (RCFC-ER)
National Medicinal Plants Board (NMPB), Ministry of AYUSH, Govt. of India
Jadavpur University, Kolkata - 700 032
Tel : +91-33-2414 6979, Fax : +91-33-24146886
E-mail : rcfcnmpb@jadavpuruniversity.in

RCFC-Eastern-Region-NMPB @RCFC_ER http://rcfceast.org/