

# Building prosperity through organic spices

A case study on tribal-led value chain development in the North-eastern Hill Region

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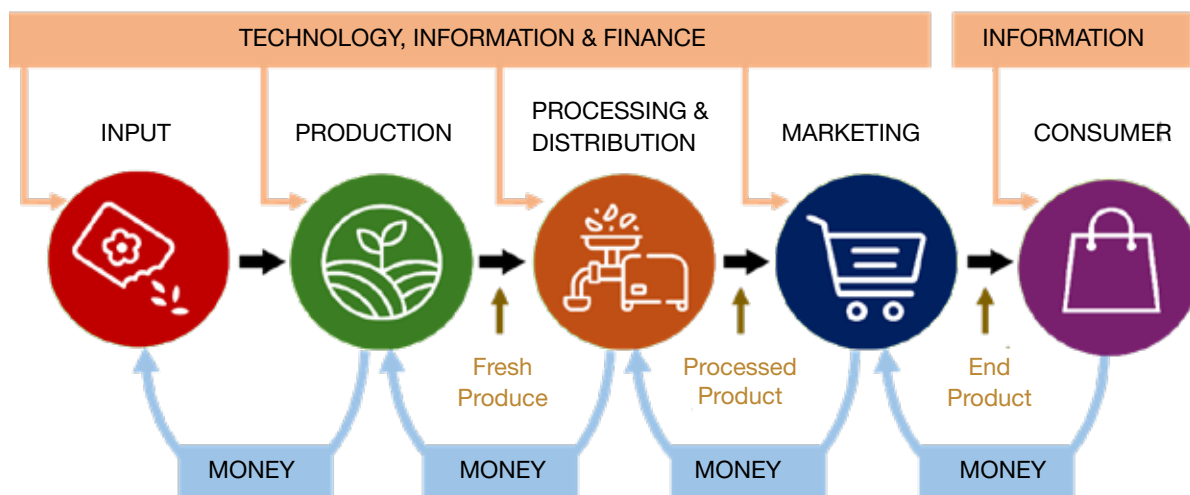
*Agricultural value chains enhance product differentiation and market access, particularly for small farmers in developing regions. In the North-eastern Hill Region (NEHR) of India, limited institutional support hinders value chain development. This case study highlights efforts. ICAR and the Department of Horticulture, Manipur, to establish an organized value chain for organic spices, focusing on turmeric, ginger, and chilli. Grassroot Syndicate Producers' Company Ltd., an Farmer Producer Company (FPC), played a central role, supported by ICAR's capacity-building initiatives and Manipur Organic Mission Agency (MOMA)' financial aid. Technological interventions, including processing equipment and training, improved productivity, quality, and market access. This initiative transformed traditional farming into a profitable enterprise and demonstrated a scalable model of tribal-led value chain development, enhancing livelihoods through increased income and sustainable practices. By addressing infrastructure gaps, providing technical guidance, and facilitating market linkages, the initiatives fostered sustainable growth ensuring inclusivity and environmental stewardship.*

**Keywords:** North eastern, Organic spices, Value chain

A well-defined and intelligently organized value chain plays a crucial role in product differentiation and market promotion for any agricultural commodity. Agri-food products, whether fresh or processed, move from the field to consumers through several interconnected steps, including input procurement, production, processing, packaging, and distribution. These interlinked activities, along with the individuals and organizations involved in them, collectively form the agri-food value chain. It is essential to distinguish value chains from supply chains. While supply chains primarily focus on logistical aspects such as storage, transportation, packaging, and administrative processes to deliver a product from the point of production to the consumer's doorstep, value chains encompass the collaborative efforts of actors and activities that enhance the value of the product. These actors such as producers, processors, traders, financiers, and consumers—play integral roles in linking production to consumption, ensuring the product gains added value at each step. In one way or another, whether as producers, processors, traders, financiers, or consumers, we all actively participate in agri-food value chains, shaping the

journey of commodities from farm to table.

A value chain involves a diverse range of activities and the integration of knowledge, information, finance, and human resources essential for organizing producers and other stakeholders. At one end of the agri-food value chain are the producers, primarily farmers who grow the crops. At the other end are the consumers, who ultimately enjoy the final products in either fresh or processed forms. Between these two ends lies a network of individuals, micro, small, medium, or large enterprises, each contributing to a specific step that collectively completes the chain, culminating in the delivery of the product to the consumer. Various support roles are integral to the value chain, performed by individuals and organizations that enable its smooth functioning. For instance, governments enact laws and design policies, funding agencies provide grants and loans, and research and development organizations offer technological innovations and extension services to empower stakeholders. These contributions ensure that every actor within the value chain can effectively fulfill their role.



An overview of agri-food value chain

Agricultural value chains encompass a wide array of activities, including the development and dissemination of plant varieties, the supply of agricultural inputs, farmer organization, crop production, post-harvest management, sorting and grading, storage, industrial processing, value-addition, packaging, branding, transportation, marketing, and feedback collection from markets or consumers. Each of these interconnected elements is crucial in creating an efficient and effective value chain that benefits both producers and consumers alike.

In developing countries like India, dual value chains – one unorganized and the other organized – often operate simultaneously for the same agricultural product. Small farmers typically participate in unorganized networks, where commodities are transported to local intermediaries and eventually to local retailers or wholesalers. In contrast, organized value chains deliver the same products, often of superior and more uniform quality with better packaging, from larger farms or well-structured farmer groups to commercial buyers, and subsequently to supermarkets or exporters. This dual system poses challenges, particularly for small farmers, who may face low prices and poor market returns. Integrating these small growers into organized value chains is a critical concern. The situation is even more pronounced in the North-eastern region of India, where limited institutional support and inadequate handholding hinder the development of robust value chains for agri-food commodities.

In this context, the ICAR Research Complex for NEH Region, under the Tribal Sub-Plan, initiated efforts to establish a value chain for organic spices in Manipur. The Department of Horticulture and Soil Conservation, Government of Manipur, collaborated in this endeavor, acting as a catalyst by providing essential support to the producers. Subsequently, the institute's Agri-Business Incubation Centre joined the initiative, playing a proactive role by offering business incubation support and facilitating market linkages. This collaborative approach is aimed to empower small farmers and integrate them into a more organized and profitable

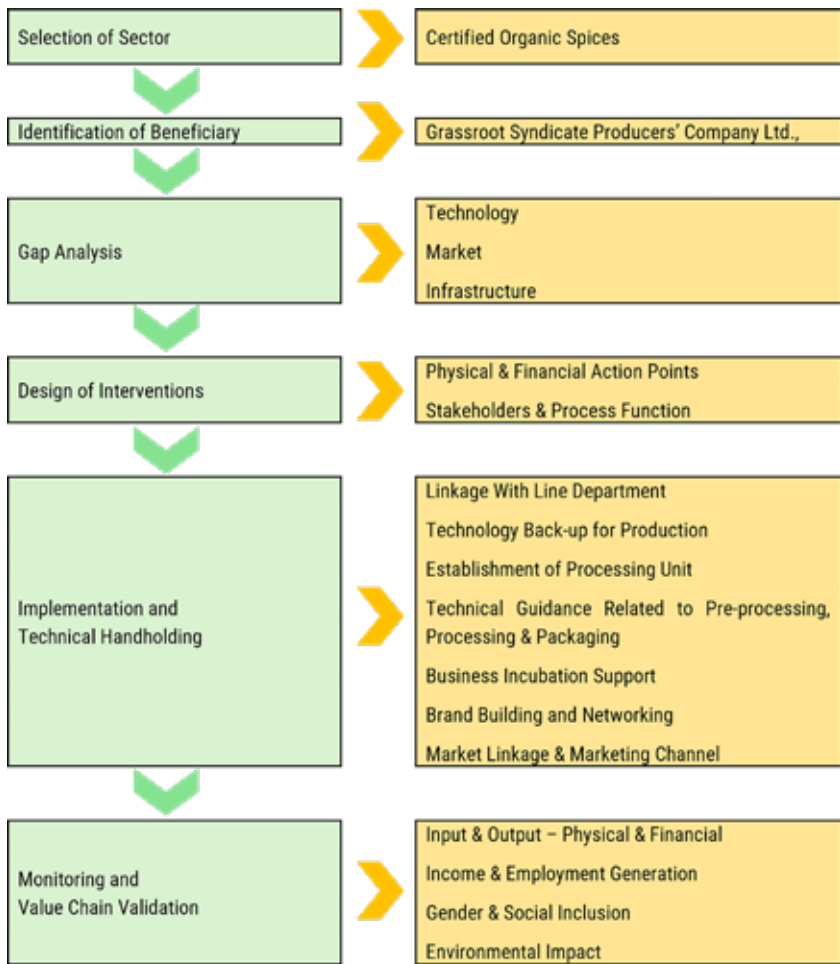
value chain.

#### Basic Information about the beneficiary

Name of the beneficiary	: Grassroot Syndicate Producers' Company Ltd. (FPC)
Date of establishment	: 10 <sup>th</sup> February 2014
Registration No.	: U01400MN2014PTC008373
Registered office	: Diocesan Social Service Society (DSSS), Mantripukhri, Imphal East - 795001, Manipur, India
Age of members	: 29-56 years
Sex	: 80% Female and 20% Male
Category	: 90% ST and 10% General
Educational level	: 20% Illiterate, 70% Matriculate and 10% Graduate
Catchment area	: Ukhrul, Tamenglong, Senapati, Chandel, Churachanpur, Imphal East and Imphal West
FSSAI license no.	: 11614008000038
Brand name	: Country Farm

Before intervention, the main activities of the beneficiaries for sustaining their livelihood were farming for household consumption, unskilled labour work and mostly works on daily wage basis. The socio-economic condition of the beneficiaries was not up to the mark with monthly income. Diocesan Social Service Society (DSSS), a reputed NGO assembled all the beneficiaries and formed Self Help Groups (SHGs) with 90% of the female members. Main activities of the group were drift and saving. Slowly they started processing activities (washing, slicing and drying) at farm level and were earning income ranging from ₹3,000 to ₹ 5,000 per month. The SHG was later converted into a Farmers Producers Company (FPS) namely, Grassroot Syndicate Producers' Company Ltd. under the aegis of DSSS. DSSS established 12 resource centres in various hill districts in Manipur and through these resource centres, the beneficiaries started the production of turmeric and ginger.

## Methodology adopted



## Intervention made

The ICAR Research Complex for NEH Region, Manipur Centre, has maintained a long-standing collaboration with the DSSS, focusing on various capacity-building activities in agriculture and allied sectors. During a State-Level Seminar on Paramparagat Krishi Vikas Yojana (PKVY) held in Imphal, a representative from Grassroot Syndicate Producers' Company Ltd. presented their activities, which garnered significant attention from ICAR experts attending the seminar as resource persons. Following the seminar, the ICAR team engaged with the FPC, where the representatives expressed their need for technological guidance and other forms of assistance. The ICAR team initiated the process by conducting a market system analysis to map the value chain. This involved a baseline survey, consultative meetings, and focus group discussions to identify both opportunities and constraints. The analysis revealed a promising potential for developing a value chain for organic spices, prompting ICAR to take strategic initiatives under the Tribal Sub-Plan of the institute.

Turmeric, ginger, and chilli were chosen as the focus crops for value chain development due to their high market demand and the expanding global interest in certified organic products. Grassroot Syndicate Producers' Company Ltd. was selected as the primary beneficiary, given its well-structured network of 12

resource centers spread across various districts of Manipur, connecting a substantial number of farmers. Following an in-depth baseline survey and focused discussions with FPC members, the team identified key technology needs, with the lack of processing infrastructure emerging as a major gap. Marketing constraints were also analyzed in detail. Based on these insights, targeted interventions were designed, emphasizing both physical and financial action points. These interventions were aimed to address the identified gaps while aligning stakeholders and process functions to create an efficient and sustainable value chain for organic spices.

To implement the targeted activities, the ICAR Team collaborated with the Department of Horticulture and Soil Conservation, Government of Manipur. Through the centrally sponsored scheme, Mission Organic Value Chain Development for North Eastern Region (MOVCDNER), implemented by the Manipur Organic Mission Agency (MOMA), beneficiaries received support for the production of certified organic spices. The ICAR team provided training on organic production practices for turmeric, ginger, and chilli, along with regular need-based technical guidance and agro-advisories.

A significant gap in the planned value chain was the lack of processing facilities. Recognizing this, the ICAR team identified the need for a primary processing unit for producing turmeric, ginger, and chilli powder. Under the Tribal Sub-Plan (TSP), the Grassroot Syndicate Producers' Company Ltd. (FPC) was provided with essential processing equipment, including a grinder, sealing machine, electric motor, hammer mill, weighing scale, and a solar tunnel dryer. These interventions accelerated the processing activities, and with the introduction of improved packaging and ongoing technical guidance, the processing workflow became more streamlined. ICAR also assisted in conducting quality analyses of the finished products. The initiative culminated in the ceremonial launch of the Organic Spice Processing Unit under the brand name "Country Farm."

The FPC was subsequently enrolled under the Agri-Business Incubation (ABI) Centre of the ICAR-Manipur Centre, where it received continuous business incubation support to establish an organized value chain for certified organic spices. The ABI Centre provided assistance in brand-building and market linkage, while marketing support was further enhanced by MOMA. Beyond value chain development, ICAR validated the entire process by monitoring key performance metrics,

including physical and financial inputs and outputs, annual profit generation, and employment creation. Special attention was given to gender mainstreaming, market trends, and environmental impact, ensuring the sustainability and inclusivity of the initiative.

### Outcome and impact

The intervention by ICAR-Manipur Centre under the TSP ABI, in collaboration with MOMA, has achieved remarkable success in developing an organic spices value chain. Notably, ICAR adopted a practical and efficient approach by avoiding the creation of a highly complex value chain with multiple actors. Instead, a step-up approach was implemented, focusing on gradual improvements in productivity, product quality, working conditions, system efficiency, and the overall business environment. The majority of the value chain operations were managed by the FPC, which served as the primary actor responsible for process functions. Meanwhile, ICAR and MOMA played crucial supporting roles, providing technical guidance, capacity-building, and logistical support to ensure the seamless functioning and sustainability of the value chain. This collaborative and streamlined approach has been instrumental in achieving the initiative's objectives.

### Various chain operations carried out by FPC members

A successful value chain must also identify key market players and competitors. Processed organic spices have strong market demand and significant export potential. In the North-east region of India, there were few, if any, prominent enterprises focusing on organic spices, presenting a unique opportunity. Grassroot Syndicate Producers Company Limited, with its network of 12 resource centers across different districts, brought together pro-poor producer groups

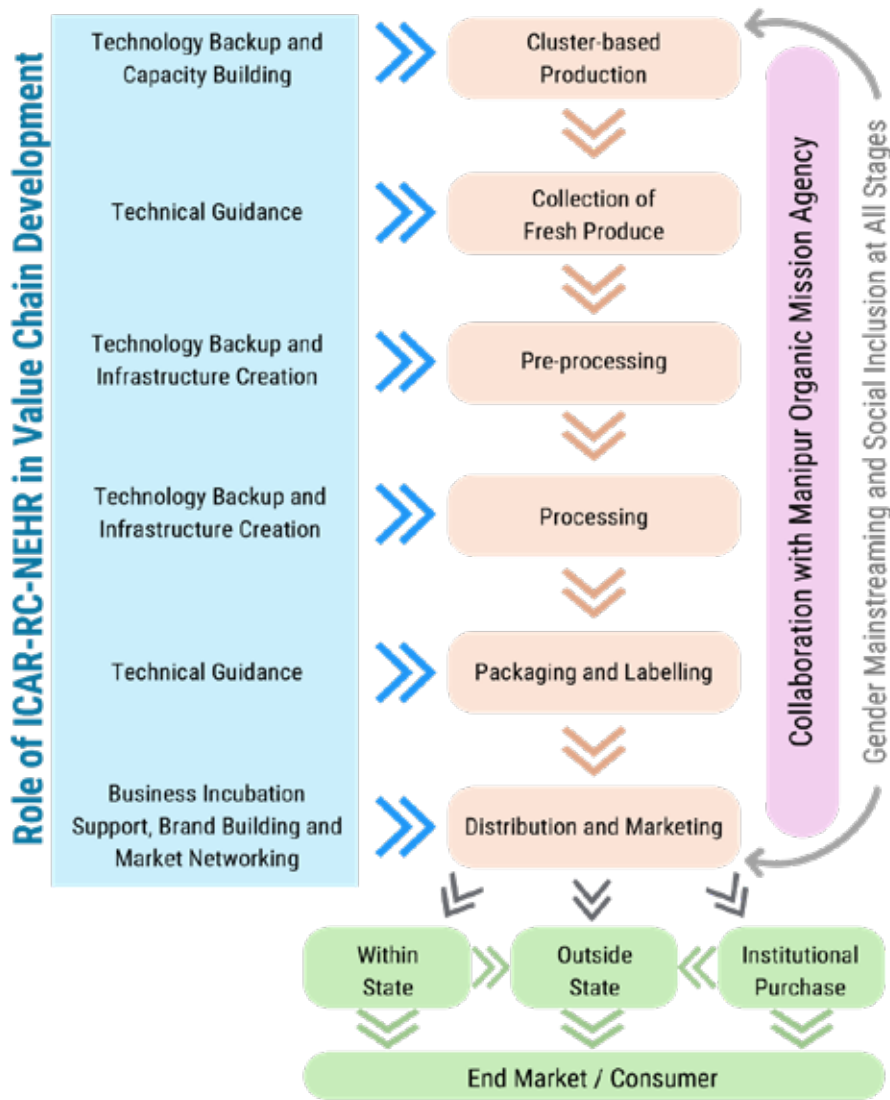
engaged in the production of certified organic spices, supported financially by MOMA under the MOVCDNER. Technological interventions introduced by ICAR improved both crop productivity and product quality. The well-established working environment within the FPC contributed to enhanced system efficiency, requiring only minimal streamlining of chain operations.

Currently, the FPC produces six value-added products namely dry sliced turmeric, dry boiled turmeric, dry sliced ginger, dry king chilli, turmeric powder, and ginger powder. Their annual production capacity ranges from 40 to 50 metric tonnes. The FPC also earned organic certification under both National Organic Program (NOP) and National Programme for Organic Production (NPOP) standards, becoming the first certified organic spice processing unit in Manipur. In addition to its production capacity, the FPC benefitted from its prior marketing experience, which was further strengthened through business incubation support. The processed products are sold in local markets, while semi-processed goods are marketed both locally and expanded to other states. Market linkages were successfully established with commercial enterprises, MOMA, and NERAMAC, enhancing the FPC's reach and profitability. About 28-30% of the end products are sold directly through its own outlets to local wholesalers and retailers. Institutional purchases by MOMA and the North Eastern Regional Agricultural Marketing Corporation (NERAMAC) contribute 8-9% of the total sales. A significant portion of the FPC's products, approximately 61-64%, is supplied to commercial business firms, including Mahindra Group (New Delhi), Peermade Development Society (Kerala), Dhenki (Kolkata), and YRP Tribal Agro Private Limited (Manipur). Geographically, 55-60% of the products are sold within Manipur, while the remaining

40-45% are distributed to other states. As awareness of the FPC's organic spice products grows, an increasing number of buyers and traders are reaching out to establish business relationships, indicating a promising trajectory for future market expansion.

The FPC is generating a healthy net profit of ₹50,000 to ₹1,00,000 per month. Over the past two years, the FPC has achieved an annual turnover of ₹150-200 lakhs, with a net profit ranging from ₹22-30 lakhs, reflecting an input-output ratio of 1.18. This significant increase in income has positively impacted the livelihoods of the beneficiaries. Many members are now able to afford better education for their children and have diversified into additional income-generating activities such as piggery, poultry, and mushroom farming. The FPC's





Developed value chain of organic spices

achievements have been showcased at prominent events such as Biofach, Krishi Unnati Mela, India International Trade Fair, World Food India, and various Farmers' Fairs and Agri Expos, raising awareness of their products and success. Beyond the farmer members, the processing unit now provides direct employment to 10 individuals,

chain operations, particularly in production and pre-processing activities, making the initiative gender-responsive. Nearly 80% of the actors in the value chain are women, empowering them to participate in the mainstream economy and access income opportunities at par with men. The adoption of organic production

further contributing to the local economy and employment opportunities.

Competitiveness is a key factor in ensuring the sustainability of a value chain. The primary drivers of increased competitiveness include enhanced knowledge, access to information, improved skills, and better access to finance. Due to physical assistance from ICAR under TSP and financial assistance from MOMA under MOVCNDR, the initial cost burden for manufacturing and processing was significantly reduced. Cluster-based production further lowered the overall cost of production and raw material procurement. Technological advancements introduced by ICAR boosted crop productivity and enhanced processing efficiency, contributing to cost-effectiveness. Additionally, the FPC successfully attracted funding from other agencies, further strengthening its operations. Over time, the FPC has built its capacity to independently manage most of the critical operations along the value chain, ensuring greater control and sustainability.

Women have played a significant role in the value



Tribal women involved in processing chain operations

practices and the processing of raw materials organically has ensured that the operations have no adverse environmental impact. Thanks to the dedication and hard work of the members of Grassroot Syndicate Producers' Company Ltd., along with the support from ICAR and MOMA, this initiative has become a flagship success story for the development of the organic spices value chain in Manipur and North-east India.

The success of the current interventions can be attributed to the establishment of the necessary conditions for mobilizing economic, market, and institutional support, which facilitated the growth of the value chain. The production base of small farmers, combined with the efficient administration by the FPC members, fostered the development of strong economic ties among value chain actors. The FPC members made key decisions on what to grow, where, when, how, and at what price to sell the products to traders. Additionally, gender and social inclusion were achieved through the active participation of pro-poor tribal farmers and women in the value chain. The business environment was further strengthened through consistent brand building, business incubation support, and market networking. However, the development of a successful value chain in the region would not have been possible without the involvement of key stakeholders, such as local service providers, government agencies, and research institutions, which played critical supporting roles.

It was also recognized that value chain development requires a market-driven approach to farming. The transition from subsistence to commercial agriculture is a long-term process that requires sustained support to enable the environment and strengthen local capacity. Despite these challenges, North-east India holds significant potential for the development of value chains for specialty organic products.

### SUMMARY

The organic spices value chain has significantly improved tribal livelihoods, particularly of women, by integrating small farmers into organized networks. ICAR-Manipur Centre's targeted interventions under the Tribal Sub-Plan, supported by MOMA, enabled FPC-led production, processing, and marketing of certified organic spices. Key interventions included infrastructure development, technical training, and branding, leading to enhanced productivity, improved product quality, and market access. This streamlined value chain model achieved significant economic gains, gender inclusivity, and environmental sustainability, offering a replicable framework for empowering small-scale farmers and fostering rural prosperity in remote regions.

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In 2006, the Indian Council of Agricultural Research, brought out the First Edition of 'Handbook of Fisheries and Aquaculture'. The present revised edition comprises 42 updated and six new chapters, viz. Fish physiology; Aquaculture engineering, Fisheries development in India; Fisheries cooperatives; Demand and supply of fish; and Climate change - impact and mitigation. The Handbook would be of great value to students, researchers, planners, farmers, young entrepreneurs and all stakeholders in fisheries and aquaculture.

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