

# LEVERAGING FARMER PRODUCER COMPANIES TO TRANSITION TO MARKET-BASED PRODUCTION SYSTEMS IN JHARKHAND

## Key achievements

JOHAR's<sup>1</sup> strategic marketing interventions to support Farmer Producer Companies (FPCs) increased sales for poultry and tomatoes

19 FPCs, covering 1.4 lakh households, promoted to avail quality inputs and access more lucrative output markets

## Context

Small and marginal farmers in India struggle for access to good quality inputs in farming of crops (seeds, fertilizers, crop protection) and livestock (stock species, breed, density, feed consumption); credit; market acceptance (such as for a new product); connectivity (for bulk marketing); and storage facilities. Aggregation of farmers into Farmer Producer Companies (FPCs)<sup>2</sup> has shown to overcome many of these problems.

“*JOHAR FPCs are unique compared to existing ones because of their huge membership base (7,000-8,000 per FPC), shareholder composition (only women), and product basket with produce that helps double incomes*”



JOHAR has planned to promote 30 FPCs covering 2 lakh households of which 19 FPCs are operational, to enhance agricultural incomes of rural producers by increasing productivity, improving market linkages and providing value addition. FPCs formed under the JOHAR project were successful in increasing production and farmer incomes by opening up a new source of earning.

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membership base (7,000–8,000 per FPC), shareholder composition (only women), and product basket with produce that helps double incomes.

Ensuring market access would further boost farmer livelihoods. For this, it is important for FPCs to have sustainable market linkages with different types of buyers, such as wholesale markets (intra- and inter-state), modern retail chains, business-to-business e-commerce players and corporates dealing with food processing. However, capacities

1. Jharkhand Opportunities for Harnessing Rural Growth

2. Many organizations such as NABARD, SFAC, FORD Foundation, Rabobank Foundation, HIVOS, State governments, Tata Trust and Corporates have taken initiatives to support the promotion, registration, and growth of these FPOs. In the process, thousands of FPCs came into existence throughout the country.

of FPCs may not be sufficient to explore and maintain such linkages. FPCs thus require guidance and support in the initial stages as systems and processes need to be followed to capture markets. Systems on procurement, sorting, grading, packaging

and logistic functions have to be developed. For this, linkages with institutional buyers and development of marketing strategies for the brands to be promoted by the FPCs need to be initiated at the state level.


This note includes experiences and learnings of the implementation of marketing initiatives for: (i) a new poultry product, and (ii) increasing the marketing of tomato produce through post-harvest management practices and technologies.

### Problem Analysis: Kuroiler<sup>3</sup>

Kuroiler (a breed that produces more eggs than the native or desi breed can also be





sold for meat), is being promoted in the JOHAR project to increase household

income of beneficiaries by selling of live birds.



*JOHAR Kuroiler has the following advantages over broiler:*

- Less food safety risk as it is less exposed to antibiotics*
- Reared in natural semi-intensive environment*
- High content level of protein, calcium and vitamin*
- Low level of fat content; and flesh and tastier meat*

Characteristics	Kuroiler	Desi
 Color	Multi-color	Multi-color
 Annual egg laying capacity	150	40
 Time needed to start laying eggs	22 weeks	33 weeks
 Weight after 6 months	Male: 4 kg, Female: 2.5 kg	Male: 1 kg, Female: 1.2 kg
 Food requirement	Normal household food	Normal household food
 Bird price per kg (INR) (wholesale)	140	250-300

3. Kuroiler is a hybrid breed of chicken developed by Keggfarms Group in Gurgaon, Haryana during early 1990s. It has been derived from crossing over either Coloured Broiler male with Rhode Island Red Female or White Leghorn Male with Rhode Island Red Female.

However, various poultry wholesale markets in and around Ranchi had low demand for Kuroiler resulting in it selling at the price of a broiler. The reasons for the low demand were attributed to existing market dynamics and customer perceptions regarding Kuroiler, such as the following:

**It is considered an adulterate of the native (desi) breed** which resulted in very low number of these birds sold per day.

**Lack of rearing of Kuroiler for commercial viability** through FPCs or cooperatives did not secure it as a product category in the marketplace.

**De-motivating for farmers** as they could not envision the benefits of rearing Kuroilers due to low price realization and sales volumes, because it was being sold at the price of broilers or as an adulterate.

**Lack of customer awareness** about Kuroiler made it unpopular with producers and to consumers.

**Lack of product validation before entering the market** resulted in poor understanding and communication about the added value proposition of Kuroilers over broilers and desi breeds, and hence, FPCs were not able to create a pragmatic market entry strategy.

**Competition from substitutes** such as Cockrail (another poultry breed very similar to desi breed).

**Absence of retailers** accepting Kuroiler; except a few counters where adulteration was noted.

**Confusion in positioning of Kuroilers** because these birds were neither considered premium like desi birds nor like broilers in the marketplace. Farmers were incurring high cost of production with respect to broilers (popular backyard poultry bird) and were expecting to sell Kuroilers at the price of desi birds.

Rearing cost for Kuroiler is higher than that for the broiler breed. Rearing for 15 days at the mother unit incurs a total cost of INR 39.50; rearing for another 30 days at the rearing unit incurs a total cost of INR 85–90 and by this time period a chick develops into a bird weighing 1–1.25 kg. However, the market was offering just INR 90–100 for a kg (i.e. at same price as that of broiler).

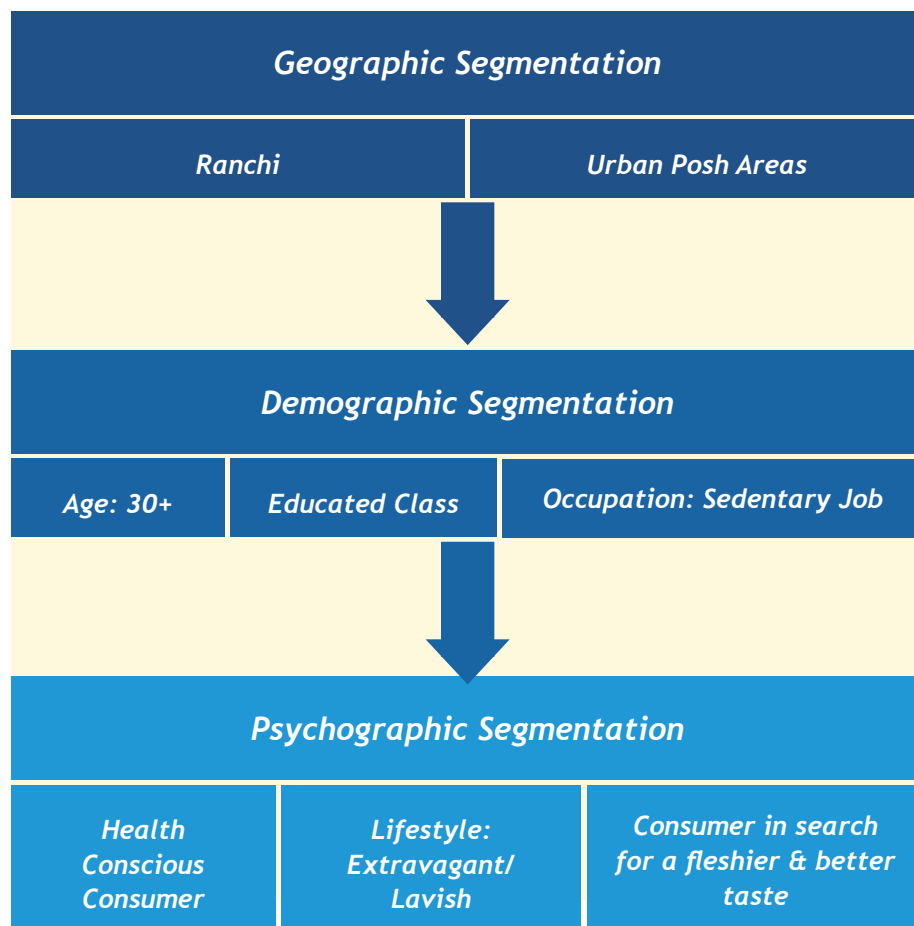
## Interventions: Kuroiler

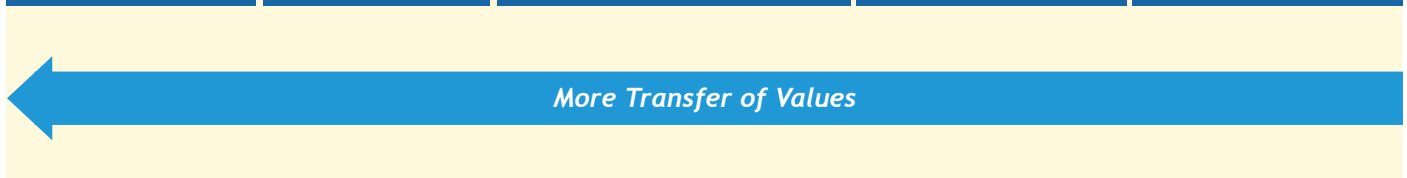
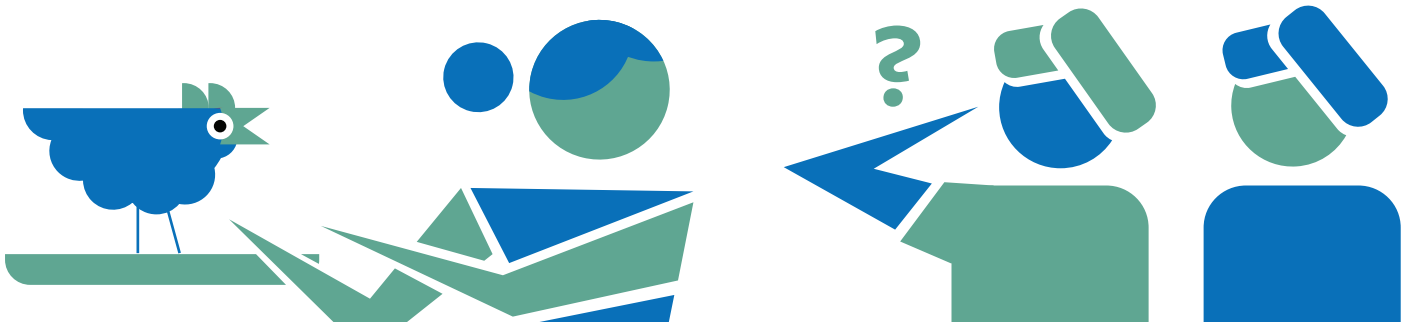
**Market positioning and segmentation.** The FPC targeted the educated consumer in the age group 30 plus years with a sedentary job or lifestyle, dwelling in urban posh areas of Ranchi city to position Kuroiler meat as safe for consumption.

**Pricing mechanism.** Kuroiler appears as an alternative to the native (desi breed) bird which can be available to consumers at an affordable (comparatively cheaper) rate. Thus, it was planned to manage pricing to a maximum retail price of INR 200 per kg so that the retailer could profit by a margin of 43 percent with FPC and as a member or grower profit by 12 percent and 25 percent, respectively.

### Positioning in retail outlets.

Through a buyer-seller meet, 10 retailers were chosen and provided a 3 feet length, 6 feet width, 2 feet depth cage each, at no cost for their retail counters. They were also supported through promotional materials. Depending upon the retailer's demand, birds were supplied at their doorstep.





**Streamlined supply of birds.** Murhu Nari Shakti Kisan Producer Company Ltd. was given the responsibility to ensure a regular supply to the 10 retail outlets. The FPC took responsibility for the arrangement of logistics, weighing and loading of

birds in plastic cages. Losses incurred due to mortality and shrinkage during transportation were borne by the FPC.

**Marketing communication.** Regular news items were published in newspapers

to communicate that Kuroiler meat is safe and available readily. Each retail outlet/ counter was provided with pamphlets and standees to communicate the benefits of consuming Kuroiler meat and its advantages over other substitutes.

## Problem Analysis: Tomato Marketing

Tomato was selected as one of the key vegetables to be grown because it: (i) can be cultivated in all seasons and in all types of lands, (ii) has a good shelf life, (iii) is conducive for high scale production, (iv) provides a good profit, (v) can be sold through all types of channels, and (vi) has an established market both within and outside the state.

Jharkhand's varied topography and climatic zones allows growing of tomatoes even during off-season. The majority of farmers under JOHAR grow cooking variety tomatoes accounting for 60 percent of the market share. Salad variety tomatoes (40

percent), usually sold through modern retail outlets (such as Reliance Fresh, Spencer's) are sourced from other states.

Produce from local farmers growing tomato varieties are not accepted due to lack of product standardization. Inconsistency in tomato varieties is due to huge variation in seed types used by the farmers. Moreover, farmers who produce tomatoes in small volumes sell in local markets at retail price and do not know the benefits of trading through FPCs. Size and weight variations lead to weighing of each crate before sales adding to the selling cost, which annoys buyers. Sometimes, overloading of crates

adds to wastage due to mismanagement and damage during transportation.

**“Jharkhand's varied topography and climatic zones allows growing of tomatoes even during off-season”**

In addition, farmers in Jharkhand prefer to know the selling price of their produce before committing to sales and usually choose to settle for a stable lower price over

an unstable higher price. They also prefer to collect cash at the time of transaction. FPCs do not prefer transacting in cash as it could lead to malpractices.

In the beginning, aspects of agri-marketing

such as demand estimation (seller and buyer), price information, demand fulfilling, Goods Receive Note issue, payment to farmers, credit management, as well as data validation/reporting were done in an ad-hoc

manner. Furthermore, not having adequate number of staff at the FPC office, and not having a financial management system for producer groups and FPCs resulted in many inefficiencies during operations.



Image Credit : JSLPS

## Interventions: Tomato Marketing

Agri-marketing on a large scale consists of key activities such as demand estimation from buyers and suppliers, quality and price verification, demand aggregation, billing, logistics and payments. A technical support agency (TSA) with experience of setting up processes for agri-marketing was hired to set up processes for FPCs and train FPC staff to operate in a process driven environment.

During the peak operation season, many FPCs did not have accounts and computers. A marketing plan workshop was conducted to set up targets for three FPCs – Murhu Nari Shakti Kisan, Dakshin Koel and Churchu Urja Shakti Kisan Producer

Company Limited. Post workshop, three rounds of data validation exercises were conducted for realistic production data. Based on refined data, prospective buyers were contacted by the FPCs.

Intense handholding support to the three FPCs was planned for execution of agri-marketing activities. FPC staff and board members were able to positively influence farmers to sell through the FPC and mobilize produce from farmer members through the following strategies:

### **Establishing product segments.**

FPCs in JOHAR started providing inputs (seed, fertilizer, and crop protection) and

Package of Practices to create standardized products. In addition, to growing popular salad varieties (Vaibhav and Vaishali), discussions were initiated with interested organizations for conducting pilots for varietal trials.

**Streamlining supply.** A new parameter called 'number of saplings transplanted' was introduced to achieve more accuracy in calculating the number of plants and in turn, expected yield. FPC collection centers (CCs) were planned at strategic locations in existing trade routes to have better access to farmers for inputs and output sales. Physical presence of FPCs in

the form of CCs infused confidence among FPC farmer members to access a definite buyer/seller and switch from their existing trading partners.

**Demand aggregation.** The Board of Directors were tasked to participate in monthly farmer group meetings to explain the benefits of selling through FPCs. Haat campaigns were organized for each local haat, where FPC products were displayed, new farmers were mobilized and prospective suppliers traced for aggregation.

**Packaging.** Farmers were trained both on- and off-field to provide graded products with a uniform weight in FPC-provided crates. A regular training and messaging system for quality and weight reminders showed benefits in the marketplace.

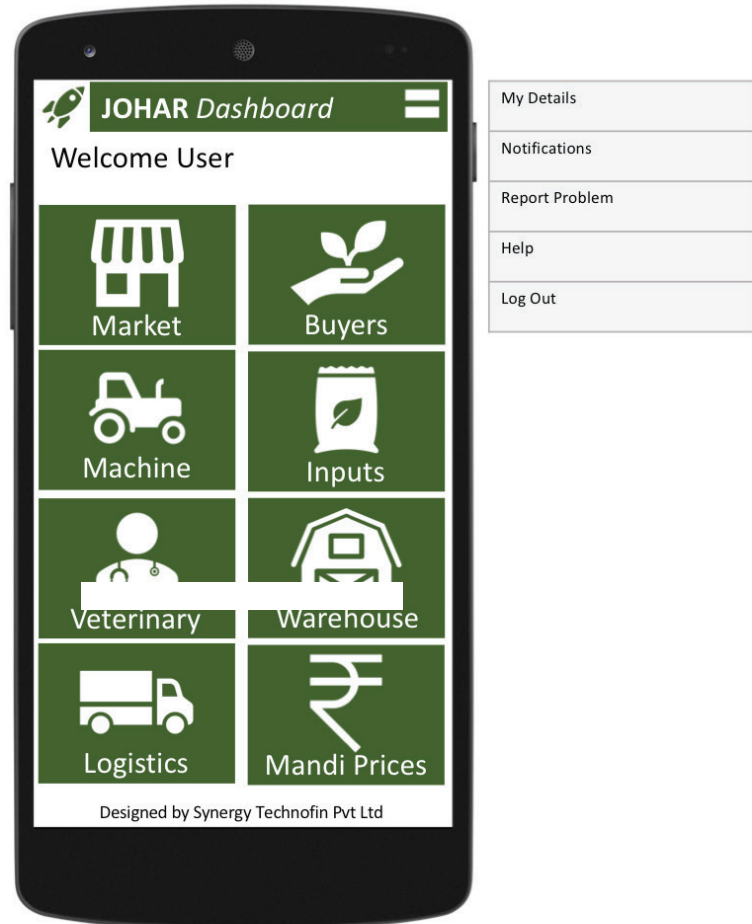
**Price discovery.** Synergy Technofin (TSA for agri-marketing for JOHAR) did a three-month pilot to list the critical features and design requirements for developing a market intelligence system. The current offline system collected data from all relevant markets related to tomato trading for JOHAR FPCs. The proposed market intelligence App would provide pricing information to farmers at their doorstep.

**Payments.** Commercial wallets were used for instant payment to farmer's bank accounts (with a fee of INR 5 for INR 1,000 transaction value). It was operated manually to pay farmers instantly. Chief executive officers and accountants were allowed to hold cash value equal to their monthly salaries for immediate cash payments. This would help new farmers to gain confidence in transacting with FPCs. After a few rounds of transactions, these farmers will be motivated to transact digitally with FPCs.

#### **Setting up business processes.**

Accountants (hired on priority basis and trained on operating Tally) created standard line items to capture revenue and cost, leading to standardization, which resulted in significant improvement in reporting frequency and time. A Financial Management System was designed

## JOHAR MARKET APP - Dashboard



*Image Credit : Synergy Technofin Pvt. Ltd.*

for transparency and accountability for segregating procurement activities from trading activities.

**Marketing plan.** A data validation exercise was planned to ascertain realistic numbers at the right time for execution of the marketing plan, and initiate a customer

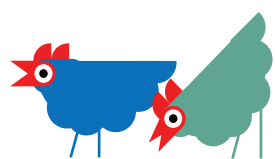
engagement activity to motivate farmers to feel connected with the FPCs and in turn sell their produce via them. Because of the marketing plan's match-making process, farmers obtained practical experience of understanding time, quality, packaging and payment requirements of different types of buyers.



## Key Results

JOHAR's strategic marketing interventions to support FPCs increased sales for poultry and tomatoes.

- Strategic marketing interventions created an increase in demand for Kuroiler. On alternate days, the FPC received a demand for about 150-200 birds, and on Sundays it increased to 250 birds.
- FPC successfully placed 1,700 birds and recovered more than 70 percent of payments within one month of starting operations.
- Increasing demand from retail markets pushed the wholesale market to restructure its benchmark pricing for Kuroilers. As a result, a wholesaler was ready to offer a price of INR 130-132 per kg at the farm gate.
- 263 metric tonnes of tomatoes worth INR 5.1 million were sold by the three piloting FPCs during the intervention period by following process-driven aggregation and sales.



	2019			
	September	October	November	December
Number of birds	1,077	790	907	1,145
Weight (Kg)	982	742	877	1,111
Reason	Sale started with an expected jump due to promotional activities in print media	Sale dropped due to onset of festive season	Low stock of birds was noticed at the rearing units	Sale was high on account of Christmas and New Year and severe winter (non-vegetarian eating trends)

Time period of data: September to December 2019

## Key Learnings

- FPC was able to capture and monitor data related to mortality and shrinkage in weight for each transaction. This helped the FPC to set standards for operational efficiency during transportation.
- A clear positioning strategy aided with regular communication in mass media helped retailers to accept Kuroiler as a premium product and increase their order size for chicks.
- Regularly educating FPC members about customer preferences and quality adherences, and providing training to respond to these market demands resulted in increase in number and volume of transactions.
- Need for market driven production to meet the significant demand for table variety tomatoes in Jharkhand. Standard varieties are not grown locally and as a result these varieties are sourced from far away states such as Karnataka and Andhra Pradesh. Hence it is important to conduct market assessment to find gaps and accordingly reshape production plans.
- Simple principles related to sorting, grading, and packaging helped FPCs to create a niche for tomatoes in wholesale markets. This created a positive impact on farmers to supply graded products.
- Rural business hubs were positioned as a strategic tool which operated as permanent CCs for both inputs and outputs. This physical proximity to farmer locations helped farmers in addressing initial trust issues related to procurement and payments. In addition, rural business hubs became focal points for communicating the benefits of transacting with FPCs and motivating farmers to join FPCs.
- Initially, tomato availability in any cluster was calculated based on the number of tomato samplings distributed and their expected yield as suggested by experts. These data were not helpful to the marketing team as real outputs have large deviations. Later, yield calculation method was changed by counting number of live plants and their expected yield in a periodic manner to increase the accuracy related to tomato availability.
- Bringing FPCs and market leaders together through a buyer–seller meet to explore possibilities for each other is an effective way to build relationships and start transactions. Hence, a buyer–seller meet was organized with market leaders, such as Big Basket (Kolkata), Big Bazar (Kolkata), Nature's Cart (Ranchi), Reliance Retail (Ranchi), Mother Diary (Ranchi), Spencers (Kolkata), SMP Agro (Ranchi) and Jubilant Consumers (Noida) to initiate market led production and delivery systems and processes. This event not only cleared the doubts of FPCs relating to transaction activities such as quality requirements, payment terms and conditions, and logistics but also gave confidence and vision to adopt these practices that are followed by private sector players.



## Challenges

### *Existing relationships between farmers and local traders.*

Local traders source products from farmers either by pre-booking through various instruments such as supplying seeds, inputs, and offering token amounts as advance or by paying cash at the time of purchase. These relationships are age-old. FPC is not only a new entity in the market but also a competitor of the existing trader

network. FPC's procurement practices are different from that of traders, which are generally exploitative in nature. To break this nexus between farmers and traders is a huge challenge.

### *Unable to match demand and supply during festival season.*

There was a surge in market demand at the end of Sawan month (July). By the time,

FPC attained enough production during mid-September, demand declined due to onset of the Durga Puja festival. FPC was forced to hold the inventory during this time and started supply of birds after the end of the festival when demand for birds was revived.

### *Need for optimizing logistics.*

The cost for transporting live Kuroilers was INR 9 per unit whereas the industry average is INR 4 per unit. This high cost of transportation resulted from underutilization of capacity during transportation, which has squeezed the profit margin of the FPC.

**Weight and size issues.** Customers prefer birds of weight around 1–1.5 kg, but FPC was providing underweight (600 gm) birds, which is creating scope for customer dissatisfaction and loss of revenue for farmers.

**Unexpected decrease in production** because transplanting season for tomatoes was delayed by one-and-half months due to excessive rain for prolonged periods of time. The yield of tomato crops was affected, and many plants grew in size but did not bear fruit. This decrease in production led to forgoing of commitments made with buyers.

**Lack of regulated markets in the state.** Jharkhand does not have an Agricultural Produce Market Committee (APMC) Act and the markets do not have the required infrastructure (roads, shops, parking facilities, drainage, waste disposal, storage facilities, price and quantity monitoring) to operate efficiently. Most marketplaces are haats that operate on a specific day of the week. Jharkhand is popular for off-season production of many essential vegetables which are sourced by traders from the neighboring states. These outstation buyers need better support and infrastructure while transacting with these markets.

**Increase in retail sales.** Decreased yields led many farmers to sell their produce themselves in retail markets as prices were



Image Credit : JSLPS

quite attractive. FPC could not motivate farmers to sell through it as it was offering wholesale prices. As FPC is planning to increase the production volume for farmers, it will face hurdles in future in aggregation of produce due to misunderstanding of the pricing mechanism in retail and wholesale markets by farmers.

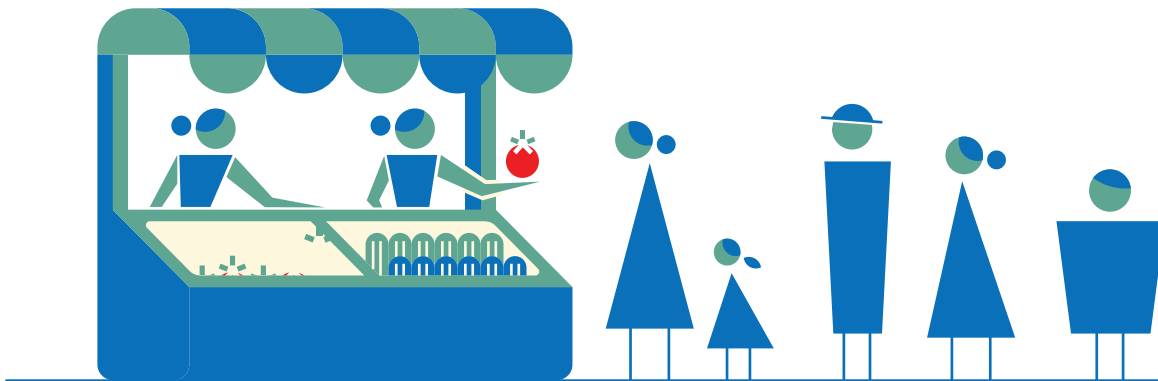
**Quality issues.** Tomatoes had dark spots and white lines on their surface, and

many were misshapen due to prolonged rains. Due to poor quality, the quantity sold and sales price realization in wholesale markets were affected.

**Aggregating demand,** standardizing supply and estimating production volume for such a large number of farmers spread over 17 districts was difficult without use of technology. Many times, desired volumes were not available to transact with

rewarding markets and buyers due to wrong estimations.

**Lack of market information and intelligence system.** Data collection related to market information are on need basis and reactive in nature. The decisions related to buyer engagement are taken in haste. Many times, farmers miss good opportunities existing in nearby markets due to lack of prior knowledge.



## Way Forward



Image Credit : Rohit Jain

**Expansion of rural business hub network.** Rural business hubs will help FPCs to reach farmers in a strategic way. This physical presence will be aided with technology driven processes to carry out input and output businesses. Currently, JOHAR is using facilities provided by government to set up rural business hubs and in the future, FPCs will set up temporary rural business hubs as CCs to facilitate output procurement.

**Developing market led production clusters.** FPCs are planning to start new production clusters by increasing the area of cultivation for existing varieties and by introducing new varieties as per market demand. This would have the following implications: minimum scale will be available for transacting with big buyers; increase in yield and volume will increase the total income for farmers; and for new varieties, FPCs will have competitive advantage as a supplier.

**Contract farming.** FPCs are planning to undertake pilots on select crops, such as potato, tomato, watermelon, which have longer shelf-life and strong market requirements. These trials would be in collaboration with corporate buyers who will dictate quality specifications and handhold the production process by sharing and implementing Package of Practices, extending financial support, and buying back the produce. Based on the on-field experience, these pilots will be scaled for large scale production.

**Establish farmer's wholesale market.** To address the lack of marketing infrastructure in the state, JOHAR FPCs plan to establish wholesale farmer's markets in which bulk volume trading activities will be undertaken. Based on the learning from existing markets of Karnataka and Maharashtra, activities will be scaled up for creating more marketplaces, increasing capacities of existing markets, and introducing technology for automation and

data communication.

**FPC member training.** Continuing awareness and training programs to educate FPC members about customer preferences and quality adherence would enable farmers to respond to market demands. JOHAR will engage with business-to-business e-commerce companies for hands on training on setting up CCs, quality management and periodic training on grading and packaging.

**Robust supply chain.** Efficiency is required in every step of the supply chain (such as bird availability, rearing, feed conversion ratio, vehicle occupancy, mortality of birds during transportation, placement of bird retail counters (occupancy, fill rate), and payments and credit management), and for each step there is an industry standard to achieve. JOHAR's large geographic presence would allow the capture and reporting of data related to the above operational processes

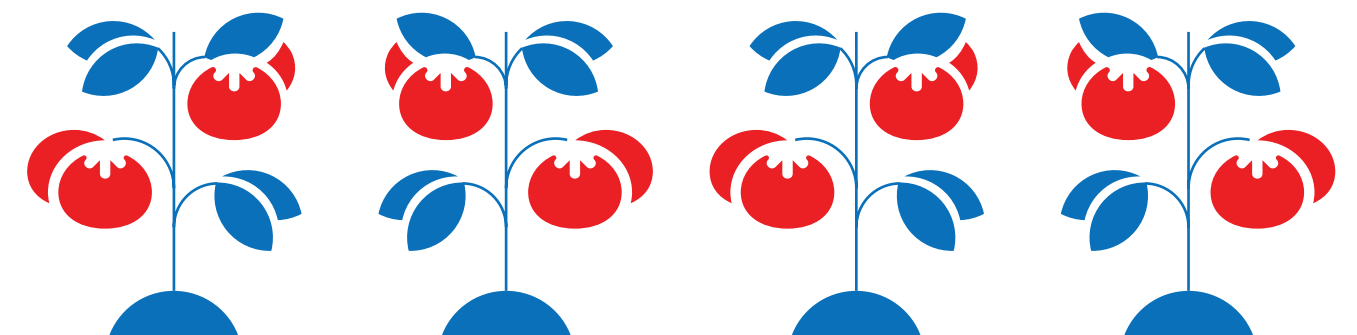
for different socio-economic conditions and would facilitate in creating area-specific operational standards.

**Price fixation and monitoring.** For Kuroilers in Jharakhand, price fixation is not yet scientific. With a sizeable customer base, demand volume, and distribution network, JOHAR will devise a price fixation mechanism for Kuroilers for the whole state and will regulate the price dissemination systems and processes.

**Making marketing intelligence App reachable and usable.** Regular trainings will be facilitated to use this App for extracting market information before making transactions. A feedback system will be implemented to understand the difficulties in the use of this App, and based on the responses new versions will be launched.



Image Credit : Rohit Jain



#### ABOUT THE DISCUSSION NOTE SERIES

This note is part of the South Asia Agriculture and Rural Growth Discussion Note Series, that seeks to disseminate operational learnings and implementation experiences from World Bank financed rural, agriculture and food systems programs in South Asia.

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