DIAGNOSTIC STUDY OF FARMER PRODUCER ORGANISATION

"KABAR KISAN UTPADAK SANGATHAN SAHAKARI SAMITI LTD" IN KONCH BLOCK OF GAYA DISTRICT

Submitted
to
Magadha Central Co-operative Bank Limited, Civil Court Compound. Gaya

MAY 28, 2025

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ACKNOWLEDGEMENT

The report entitled "Diagnostic Study of FPO "Kabar Kisan Utpadak Sangathan Sahakari Samiti Ltd" in KONCH block of Gaya District" was conducted, wherein In-Depth interviews with 75 shareholders along with Focus Group Discussion with the community was done. The study was supported by Magadha Central Cooperative Bank Limited.

First of all, I wish to put on record my sincere thanks and gratitude to Mr. Nikesh Kumar, MD, Magadh Central Cooperative Bank Limited for providing constant help and assistance to us through his team, during the course of study without which this study would not have been completed. I also express my gratitude to the Chairperson of "Kabar Kisan Utpadak Sangathan Sahakari Samiti Ltd" for coordinating with other shareholders for IDIs and FGD. My sincere gratitude to Mr. Ajay Kumar Singh, DAO, Gaya District for giving time for KII.

I wish to thank my Senior Research Officer & Data Analyst Mr. Shailendra Mishra for helping me in planning, designing the research tools, assisting me in training the team of investigators for collecting field data and writing the report.

I put on record my gratitude to nodal officer data collection Mr. Sanjay Choubey and his team of enumerators for timely collection of primary data and the report writing team comprising of Ms. Minakshi Tripathy, Pranav Kumar and Bharti Mishra.

I sincerely hope that the report will enable the implementing agency in much better planning for promotion and development of FPOs in the district.

May'28th 2025

Sunil Kumar Mishra
Director
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Executive Summary

Farmer Producer Organizations (FPOs) have emerged as a key policy instrument in India's agricultural development strategy, particularly for addressing the challenges faced by small and marginal farmers. Recognizing that individual farmers often lack the scale, bargaining power, and access to markets and institutional support, the Government of India has prioritized FPO promotion through multiple schemes, most notably the Central Sector Scheme for Formation and Promotion of 10,000 FPOs, launched in 2020.

From a policy standpoint, FPOs are instrumental in aggregating smallholder farmers to enhance their collective bargaining power in input procurement and output marketing. Reducing dependency on informal intermediaries by facilitating direct linkages with markets, financial institutions, and agri-tech service providers is also an important perspective. The FPOs also enable access to government schemes and subsidies by functioning as formal entities eligible for support under agricultural policies. Inclusive rural development by improving income security, reducing distress sales, and encouraging sustainable practices has also been a major boost for the farmers. The entire idea of formation and promotion of FPOs support Atmanirbhar Bharat and Doubling Farmers' Income goals, by fostering entrepreneurship, value addition, and agro-processing at the grassroots level.

This baseline survey has been undertaken to assess the current status, needs, challenges, and opportunities for the formation and strengthening of Farmer Producer Organizations (FPOs) in selected districts of Bihar. Conducted as part of the Central Sector Scheme for the Formation and Promotion of 10,000 FPOs, the study aims to provide a comprehensive understanding of the local agricultural landscape, farmer profiles, institutional linkages, and market dynamics. The findings will inform strategic planning and targeted interventions by the implementing agency, Urja Arrowhead LLP, in collaboration with the Bihar State Co-operative Bank and other stakeholders.

By capturing primary and secondary data across key parameters—such as cropping patterns, access to inputs, credit and infrastructure, existing collectives, and market access—the survey sets a foundational benchmark. This will guide the formation of sustainable, inclusive, and market-oriented FPOs that can enhance farmer incomes and resilience.

The baseline report has five chapters explaining the following:

Chapter 1: Introduction

I. Background of Agriculture and FPOs
II. District Profile highlighting the agriculture, demographic and socio economic indicators
III. Block Profile highlighting the demographic, socio economic, agriculture pattern, challenges of farmers and potential trades.

Chapter 2: Approach and Methodology

I. Detail description of the tools used: Empirical study, Secondary research, FGDs and Key Informant Interviews
II. Operational Structure of the study designed: Phase wise description

Chapter 3: Key Findings

I. In-depth interview findings
II. Focus Group Discussion observations

III. Key Informant Interview: views of the district Agriculture Officer

Chapter 4: Recommendations and way forward

SWOT ANALYSIS

Key Findings:

In-Depth Interview Highlights

i. Largest segment of the population falls within the 21-40 age group, comprising nearly 46% of the total. This indicates a relatively young and potentially active workforce.

ii. Skill development, employment generation, and educational programs could be prioritized for the 21-40 age group

iii. 60% of individuals have education within this middle school to secondary school range

iv. Dominance of Small Farmers: Small farmers (holding between 1-2 hectares) form the majority, constituting 76% of the total farmers in the block.

v. Majority in Low-Mid Income Bracket: A significant 80% of farmers in Konch block fall within the annual income bracket of ₹70,137 to ₹2,73,098, indicating that most farmers operate with modest income levels, likely reflecting smallholder farming.

vi. Agriculture is the dominant source of income, with 73 households primarily dependent on it. This heavy reliance on agriculture suggests a vulnerability to climatic variations, price fluctuations, and market-related challenges, making household incomes less resilient

vii. Primary Source – Agriculture: The highest average income comes from agriculture (₹182,160), indicating it is the main livelihood source for most households

viii. The distribution of agricultural land among farmers indicates a predominance of small landholdings. Out of a total of 75 farmers surveyed, the majority—70.7%—own land in the range of 1.1 to 2.0 hectares. Additionally, 22.7% of farmers possess less than one hectare of land. Together, this means that over 93% of the farmers operate on holdings below 2 hectares, highlighting the dominance of marginal and small-scale farming in the area.

ix. Irrigation is predominantly reliant on private electric-operated tube wells, which account for the majority of irrigation sources, indicating relatively good access to electricity and groundwater

x. Average Kharif crop production in the Konch block reveals a strong dominance of paddy cultivation, with an average yield of 28.15 quintals per household, significantly higher than any other crop.

xi. Average Rabi crop production in Konch block reveals a heavy reliance on wheat, with an average production of 20.25 quintals per farmer.

xii. The availability of agricultural equipment among farmers reflects a moderate level of mechanization with significant gaps in key areas. There are only 6 tractors and 4 harvesting machines reported, indicating limited access to heavy farm machinery, which may be due to small landholdings or financial constraints

xiii. The majority of farmers (82.7%) identify agriculture-based business as their primary choice of livelihood, highlighting the continued reliance on traditional farming activities. As a second preference, 46.7% of respondents expressed interest in establishing or participating in processing units for crops, indicating a

moderate inclination toward value addition beyond primary agriculture. Animal husbandry emerges as a significant supplementary business, with 52% of farmers ranking it as their third choice, reflecting its role in income diversification.

xiv. Vegetable cultivation, although relevant, is considered the least prioritized option, with 54.7% of farmers placing it as their fourth choice

xv. The majority (48%) of sellers prefer the Local Haat Bazaar exclusively as the primary market for selling their products

xvi. 64% of respondents reported having received agriculture-based training, while 36% had not.

xvii. There is a strong institutional presence of the Krishi Vigyan Kendra (25 units) and the Agriculture Department (33 offices), indicating a solid foundation for agricultural extension and farmer outreach

xviii. 88% of the surveyed individuals—have availed benefits from various government programs

xix. The highest beneficiary count is under PM-KISAN, which suggests better awareness and ease of access for direct income support

xx. A majority of farmers (82.7%) reported not having taken any loans, indicating either limited reliance on credit or low awareness about borrowing options

xxi. Among the small proportion of farmers who did take loans (17.3%), most borrowed at an interest rate of 7%, accounting for 13.3% of the total farmers surveyed.

FGD Highlights

i. collective bargaining power of organized groups as a key reason, hoping it would help them secure better prices for their produce and reduce exploitation by intermediaries. Trust in local leaders and the prospect of accessing government schemes also influenced their decision.

ii. Participants overwhelmingly reported a lack of comprehensive awareness or community mobilization. Initial information was conveyed through interactions with cooperative banks and officials, often lacking clarity. Many farmers perceived the enrolment process as a bureaucratic formality rather than a community-driven initiative resulting in widespread confusion about the organization's goals and potential benefits.

iii. complete absence of structured training for general members. While the chairperson had attended a state-level orientation, ordinary members remained uninformed about essential aspects such as organic practices, financial literacy, institutional credit, or agri-marketing.

iv. Land tenure insecurity is a major issue for tenant farmers who risk losing access without notice. Approximately one-fifth of members rely entirely on leased plots, often surrendering a significant portion of their harvest as rent

v. The ₹2,100 membership fee has only been paid by 60 out of 300 registered members, reflecting widespread scepticisms. Participants voiced concerns over the lack of visible returns, from their membership, citing the absence of tangible advantages such as market linkages or better pricing, with no discernible improvement in trade terms or buyer access

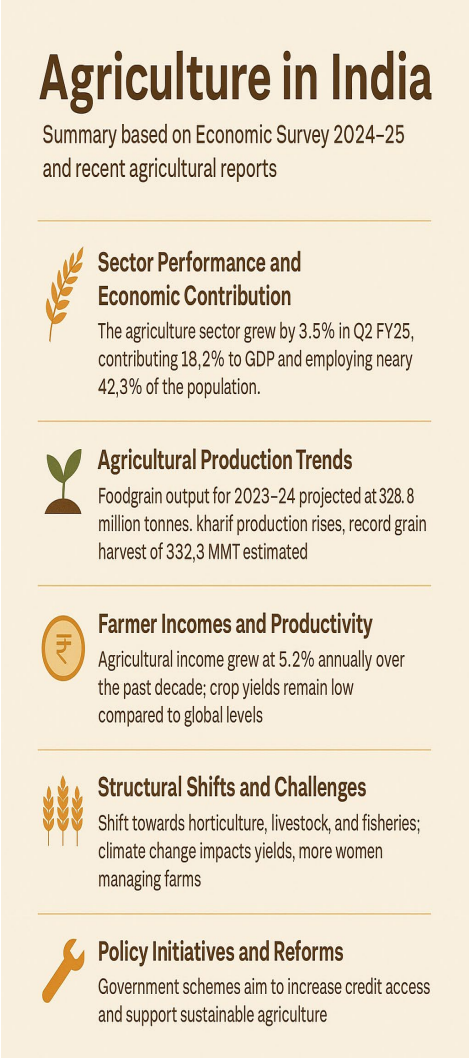
vi. Dairy farming, mushroom cultivation, and vegetable production were identified as viable agri-enterprises with strong market potential

Chapter 1
Introduction

1. Agriculture Profile-India

India's agriculture sector has demonstrated resilience and steady growth, as highlighted in the Economic Survey 2024–25 and recent agricultural reports. India's agriculture sector has continued to show resilience and serve as a critical pillar of the economy, even amid global uncertainties and climatic challenges. According to the Economic Survey 2024–25, the sector recorded a growth rate of 3.5% in the second quarter of FY25, maintaining a stable contribution of about 18.2% to the country's Gross Domestic Product (GDP). It supports nearly 42.3% of the Indian population, underscoring its central role in employment and rural livelihoods.

Foodgrain production in the country remains strong, with the total output estimated at 328.8 million tonnes for the year 2023–24, slightly below the previous year's record due to delayed and erratic monsoons. Nevertheless, the kharif season saw positive momentum, with expected production reaching 1,647.05 Lakh Metric Tonnes (LMT), a significant rise from the previous year. The Ministry of Agriculture and Farmers Welfare also projected a record 332.3 million metric tons in grain output, driven primarily by higher rice and wheat yields.



However, income and productivity disparities remain a concern. While agricultural incomes have grown at a steady pace of 5.2% annually over the past decade, this lags behind the 6.2% growth in non-agricultural sectors. Moreover, Indian crop yields remain comparatively lower than global standards, calling for significant improvements in on-farm practices, technology adoption, and post-harvest infrastructure.

The sector is also undergoing structural changes, with increasing diversification into horticulture, livestock, and fisheries. These sub-sectors are emerging as major contributors to growth and are gradually reshaping India's rural economy. Climate change, however, poses an increasing threat. Events like heatwaves and unseasonal rains have disrupted cropping patterns and led to spikes in food prices, as seen during the 2023 tomato crisis.

An important socio-economic shift is also underway. As men migrate to urban centers in search of better opportunities, women are increasingly taking charge of agricultural operations. Currently, about two-thirds of working women in India are engaged in agriculture, many of whom manage farms independently.

To support farmers and enhance sectoral resilience, the government has rolled out several initiatives. Schemes like the Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) and the Credit Guarantee Scheme for e-NWR-based financing aim to improve credit access, formalization, and infrastructure development. Additionally, the push toward sustainable agriculture aligns with India's long-term vision of becoming a developed economy by 2047.

The social aspects around agriculture have also been witnessing changing trends. The increased feminization of agriculture is mainly due to increasing rural-urban migration by men, rise of women-headed households and growth in the production of cash crops which are labour intensive in nature. Women perform significant tasks, both, in farm as well as non-farm activities and their participation in the sector is increasing but their work is treated as an extension of their household work, and adds a dual burden of domestic responsibilities.

India also needs to improve its management of agricultural practices on multiple fronts. Improvements in agriculture performance has weak linkage in improving nutrition, the agriculture sector can still improve nutrition through multiple ways: increasing incomes of farming households, diversifying production of crops, empowering women, strengthening agricultural diversity and productivity, and designing careful price and subsidy policies that should encourage the production and consumption of nutrient rich crops. Diversification of agricultural livelihoods through agri-allied sectors such as animal husbandry, forestry and fisheries has enhanced livelihood opportunities, strengthened resilience and led to considerable increase in labour force participation in the sector.

Overall, the Indian agriculture sector stands at a transformative juncture. While it continues to be a backbone of the economy, its future growth will depend on productivity enhancement, climate resilience, improved market linkages, and inclusive policies that support small and marginal farmers.

2. Farmer Producer Organisations-purpose

The Government of India initiated the concept of Farmer Producer Organisations (FPOs) to address long-standing structural challenges in the agriculture sector, especially those affecting small and marginal farmers. With over 86% of Indian farmers owning less than two hectares of land, individual farming often lacks economies of scale, bargaining power, and access to modern technology, quality inputs, and institutional credit. These farmers are frequently at the mercy of middlemen and local traders, which limits their ability to get fair prices for their produce. Recognizing these challenges, the government promoted FPOs as collective farmer-owned and farmer-managed enterprises that can aggregate produce, reduce input costs, enable better market access, and enhance overall productivity and income. The initiative also aligns with the broader vision of doubling farmers' income and ensuring inclusive rural development. Through institutions like NABARD and SFAC, and under frameworks such as the Companies Act, 2013, and the Central Sector Scheme for the Formation and Promotion of 10,000 FPOs (launched in 2020), the government has provided comprehensive support for the formation, training, and handholding of FPOs across the country.

Given the right policy thrust there has been substantial increase in the number of FPOs offering a huge opportunity to change the agro landscape. As a result, we have seen successful FPOs emerging that have been instrumental in not only uplifting the socio-economic conditions of primary producers but impacting the entire value chain and empowering the member farmers to leverage economies of scale for advisory, production, procurement, credit access and most importantly, market access and value addition of

members' produce. Although we have seen a spectacular evolution of many such islands of excellence in last few years, the process of creating new ones must be expedited.

State co-operative banks are also directed to form and promote FPOs as CBBOs by order dated 2/06/2023 of Ministry of Agriculture and Farmer Welfare, Government of India. As part of the intervention, diagnostic study in the blocks has to be carried by the CBBO for formation and promotion of the FPOs. The said RFP is for empanelment of eligible and reputed agencies to undertake the diagnostic study in 100 blocks of Bihar state.

3. URJA ARROWHEAD LLP-Profile

Urja Arrowhead is registered as a Limited Liability Partnership company in June 2023 under the LLP Act 2008. The company is engaged in action research in form of feasibility baseline and evaluation study for civil society organisations and development partners. The company in the last two years has undertaken feasibility studies for launch of development projects in Jharkhand and West Bengal. As a technical partner to reputed company, URJA ARROWHEAD has conducted training programs for elected representatives of Panchayats in Jharkhand and also artisan training in the same state. The institution has team of research experts and thematic experts who have substantial experience in the agriculture and allied sector.

4. Block Profile: Konch in Gaya District[1]

Konch Block, situated in the Gaya district of Bihar, India, is a community development block encompassing approximately 141 villages and 18 panchayats, with Konch town serving as its administrative headquarters. As per the 2011 Census, the block has a population of 201,920, comprising 105,286 males and 96,634 females, resulting in a sex ratio of 918 females per 1,000 males. Children aged 0–6 constitute about 19% of the population, with a child sex ratio of 943.

The literacy rate in Konch Block stands at 67.8%, with male literacy at 79.54% and female literacy at 54.93%. The demographic composition is predominantly Hindu (91.59%), followed by Muslims (7.98%), with smaller representations of Christians, Sikhs, Buddhists, and others. Scheduled Castes account for 22.6% of the population, while Scheduled Tribes are virtually absent.

Economically, Konch is primarily agrarian, with local markets offering agricultural inputs, groceries, and building material. In recent years have seen improvements through initiatives like the Rajiv Gandhi Gramin Vidyutikaran Yojana and the Pradhan Mantri Gram Sadak Yojana.

Culturally, Konch is notable for the Koncheswar Mahadev Temple, dating back to the Gupta period and protected by the Archaeological Survey of India. Other religious sites include the Radha-Krishna Thakurwari, Sun Temple, and local mosques, reflecting the area's religious diversity.

Educational facilities in the block comprise institutions like Gandhi High School (a model school), Saraswati Shishu Mandir, and Kasturba Gandhi Vidyalaya. Financial services are provided by banks such as the State Bank of India, Punjab National Bank, and Madhya Bihar Gramin Bank.

[1] Census 2011

Transportation links connect Konch to Gaya (approximately 28 km away), with access to Gaya International Airport and Patna Airport, as well as railway and road networks.

5. Socio Economic Profile of Konch

The socio-economic condition of the rural community in Konch Block, Gaya, with respect to health and nutrition, reflects a blend of persistent challenges and gradual progress. The majority of the population depends on agriculture and allied activities, which provide seasonal and often insufficient income, limiting their ability to access quality healthcare and nutritious food. Healthcare facilities in the block are limited, with primary health centers and sub-centers often lacking adequate staff, medicines, and equipment. As a result, residents frequently travel to Gaya town for more serious medical needs. Nutrition levels, especially among women and children, remain a concern, with high incidences of undernutrition, stunting, and anemia reported. Although government schemes such as the Integrated Child Development Services (ICDS), mid-day meal programs, and Poshan Abhiyan are in place, their impact is often reduced due to irregular implementation and lack of awareness. Access to clean drinking water and improved sanitation facilities has increased in recent years, largely due to initiatives like the Swachh Bharat Mission, but open defecation and waterborne diseases still persist in some areas. Moreover, low literacy rates and traditional beliefs hinder the effective utilization of health and nutrition services. To improve the health and nutritional status of the rural community in Konch Block, there is a pressing need to strengthen health infrastructure, enhance community awareness, and ensure the effective delivery of government programs.

6. Agriculture in Konch[2]

Agriculture is the backbone of the rural economy in Konch Block, Gaya, and plays a central role in the livelihoods of the majority of households. The region is primarily agrarian, with a large portion of the population engaged in farming and related activities. Agriculture here is largely dependent on monsoon rains, although some areas benefit from irrigation facilities through tube wells and canals. The fertility of the soil and the subtropical climate are conducive to a variety of crops, giving the area good agricultural potential if proper support and inputs are provided.

The major crops grown in Konch Block include paddy (rice), wheat, maize, pulses (like lentils and gram), and oilseeds (such as mustard). Paddy is the dominant crop during the kharif season, while wheat is the primary crop during the rabi season. Vegetables such as potatoes, onions, tomatoes, and brinjals are also cultivated, especially in areas closer to market access. The presence of livestock such as cattle, goats, and poultry adds to the mixed farming systems practiced in the block, offering additional income and food security to farmers.

Despite its potential, agriculture in Konch faces several challenges, including fragmented landholdings, limited access to modern technology, poor extension services, and inadequate irrigation coverage. The use of traditional farming methods and low adoption of high-yielding varieties or improved practices also restrict productivity. However, with increased support in terms of irrigation, credit access, capacity building, and linkages to markets and Farmer Producer Organizations (FPOs), there is significant potential to enhance agricultural productivity and diversify into high-value crops, horticulture, and integrated farming systems that combine crop cultivation with livestock and allied activities.

[2] https://gaya.kvk4.in

7. Agro-Climatic and Soil Conditions:[3]

The climate is subtropical, characterized by hot summers, a monsoon season, and mild winters. The average annual rainfall ranges between 1,000 to 1,200 mm, with the majority of precipitation occurring between June and September. This rainfall supports the cultivation of both kharif and rabi crops, although the dependency on monsoon rainfall makes agriculture vulnerable to seasonal variability and drought conditions.

The soils in Konch Block are predominantly alluvial, with patches of loamy and clayey soil, which are moderately fertile and suitable for a wide range of crops. These soils have good moisture retention capacity, which benefits paddy cultivation during the kharif season. In some areas, the soil is slightly alkaline or has low organic content, requiring soil amendments and better management practices for improved productivity.

Overall, the agro-climatic and soil conditions in Konch Block are conducive to agriculture, particularly for cereal crops, pulses, oilseeds, and vegetables. However, improved irrigation infrastructure, soil health management, and climate-resilient farming practices are essential to fully realize the agricultural potential of the region.

8. Challenges and Opportunities

The farming community in Konch Block, Gaya, faces several significant challenges that affect agricultural productivity and livelihoods. Most farmers are small or marginal landholders with fragmented plots, which limits mechanization and efficient farming. Agriculture heavily depends on the monsoon due to inadequate irrigation facilities, making crop yields vulnerable to erratic rainfall and droughts. Access to quality seeds, fertilizers, and timely inputs is often limited, while low adoption of modern machinery and updated farming techniques further restrict productivity. Additionally, poor extension services mean farmers lack awareness of improved practices, pest management, and sustainable agriculture. Inadequate storage facilities and weak market linkages force farmers to sell their produce immediately after harvest, often at low prices, reducing their income.

Soil degradation and declining fertility from continuous chemical use also pose long-term risks. Financial constraints and limited access to institutional credit push many farmers toward costly informal loans, creating cycles of debt. Climate variability and changing weather patterns add further uncertainty to farming. Moreover, the lack of strong farmer organizations or cooperatives limits collective bargaining power and access to inputs and markets. To overcome these challenges, integrated efforts focusing on infrastructure, education, financial support, and farmer collectives are essential for sustainable agricultural development in the region.

[3] Indian Council of Agricultural Research (ICAR).

Chapter 2

Methodology and Approach

1. Empirical Study: in-depth interviews (IDI) with farmers were conducted. Individual responses were obtained on the basis of stakeholder specific schedules. The purpose was to bring forth feedback from the "input providers" and "input receivers" to inform necessary changes in the execution strategy for further years. Empirical study will focus on observing the:

- General profile of the farmer and his/her household
- Income level and the economic activities pursued by the farmer as a source of income.
- Agricultural practices pursued by the farmer and the agricultural equipment with the farmer.
- The number of government schemes benefitted by the farmer household wrt agriculture and allied activities.
- Capacity building and training undertaken by the farmer in the last 2 years.
- Total land ownership with the farmer and means of irrigation.
- Major challenges faced in agriculture activity pursued and the expectation for better agriculture activities.

2. Secondary Research: KGVK plan documents and the agriculture and allied schemes of the state government were observed and reviewed.

3. Key Informant Interviews: focused on observing and critically analyzing the views of the following representatives:

- District Agriculture Officer

4. Focus Group Discussion: was done with the participation of all community members irrespective of whether they were shareholders in the FPO or not. The discussion also involved, SHGs members pursuing agriculture and allied activities, farmers, frontline agriculture workers/Pashu Sakhis.

5. Developing questionnaires/Schedules: All the tools were developed under the guidance of senior research experts of the organization. In-Depth interviews were captured electronically in KOBO COLLECT tool box.

6. Orientation of the Enumerators: enumerators were engaged and were given two-day orientation on the usage of schedules and FGD format.

7. Integration of information: All qualitative and quantitative data/information will be integrated and analysis using data analysis too (SPSS) and qualitative information will be expressed as shared by the target audience.

Operational Design of the diagnostic study:

The study aimed to understand qualitative and quantitative aspects of "diagnostic study which focused on exploring the feasibility of FPOs engagement in the trade activities. The study also focused on assessing the socio-economic status of farmers in the FPO and their reason to be associated with the FPO. A sample size of 25% of the total shareholders were considered for the study.

As per the approach mentioned, the methodology proposed for conducting the study was categorized in three phases. 1: The first phase was the Preparatory Phase where all

preparations like meetings, review of literature, development of tools, finalization of tools and orientation of field investigators was done. 2: This phase was followed by the Survey Phase in which actual data from the field was collected. 3: Finally, in the third phase, Reporting, data entry, compilation, cleaning, tabulation, analysis, and preparation of report was done.

Phase 1: Consultative Phase

1: Inception meeting with client

The assignment began with discussion of the consultant and representative of the client exchanging ideas and expectations with each other through an inception meeting. The agency obtained clarifications on the engagement, and its deliverables. The expectation from the research team was to provide insights/clarifications about the outcomes desired from the engagement. The inception meeting served as a platform to discuss the engagement approach & methodology and timelines.

2: Literature Review

The core team did an extensive literature review to understand the similar interventions done across India and its implementation. They focused on understanding the challenges and learnings of those interventions/models. This was documented in the inception report.

3: Submission of Inception Report

The output of this stage was the inception report which covered objectives of the study, detailed methodology, operational plan for primary data collection, type of survey instruments, plan for data analysis and outline of the final reports.

4: Development and finalization of research tools:

The study framework directly supported the process of drafting/developing the Data / information collection tools. By mapping the research objectives against key indicators, stakeholders and tools, the framework clearly underlined the type of data/information that needed to be collected from each stakeholder. This in turn allowed us to draft clear and precise questions to collect/extract the required data/information. A prima facie analysis of the scope of work revealed that our team would need to develop the following types of data/information collection instruments:

- In-depth Interviews (IDIs)
- Focused Group Discussions
- Key Informant Interviews

5: Field Team Recruitment: The following criteria was considered for recruitment of the research team members:

- They must be part of at-least 2-3 assignments of quantitative and qualitative.
- Data collection, preference was given to enumerators who were well versed with digital data collection tools.
- They had prior experience of conducting FGDs and IDIs
- Priority was given to the enumerators having experience of interacting with farmers or prior experience of agriculture survey
- They must understand ethical practices and safeguards requirements for working with adolescents.
- Well versed with local language and culture.

6: Training for Field Teams

The senior research officer trained the enumerators for two days to ensure that they have a common grasp of sampling methods and questionnaires. A separate session on ethical protocols and research ethics was included in the field team training. The core team delivered training in the local language. Using presentations and other training aids, terms and concepts for each data gathering tool was taught as appropriate at the beginning of the relevant sections. The training also highlighted concerns/crises that require client staff action, and such issues will be promptly notified to the survey agency's core research team/team leader, who will immediately contact the nodal agency.

Phase 2: Survey Phase

1: Data Collection, Monitoring and Supervision

The data collection, monitoring and supervision activities are listed below and detailed in subsequent sections.

- Data collection activities which also include filling observation format
- Monitoring and supervision during survey on a sample basis
- Backend data validation

Data Collection:

Prior to the commencement of the data collection, a tentative field plan will be developed in consultation with the client. The names and contact details of the team supervisor and interviewers (team-wise) will be shared. The supervisor will daily take record of following tasks:

- Update progress of completed surveys at the end of each day.
- Update progress of number of FGDs done
- Update progress of IDIs done with different stakeholders
- Backend data validation

We proposed to recruit a team of 3 enumerators and one mid management level representative for data collection in each block. The quantitative data i.e. IDI/Empirical was collected using KOBO Tool Box.

Supportive supervision visits and checking meeting

URJA ARROWHEAD provided ongoing supportive supervision during the quantitative and qualitative data collection process, ensuring on-the-job guidance for enumerators and supervisors. Additionally, daily check-in calls were conducted with the field team to gather insights and promptly address any necessary midcourse corrective actions.

Phase 3: Reporting Phase

1: Data processing, Finalization and Submission of Report to the client. The last section of the work plan presented the activities for data management, data analysis and finally the data submission along with presentation of study findings and submission of report.

- Data management and data analysis
- Presentation of top line findings to the client
- Submission of clean data sets

The information is detailed under the following sub-sections.

Chapter 3

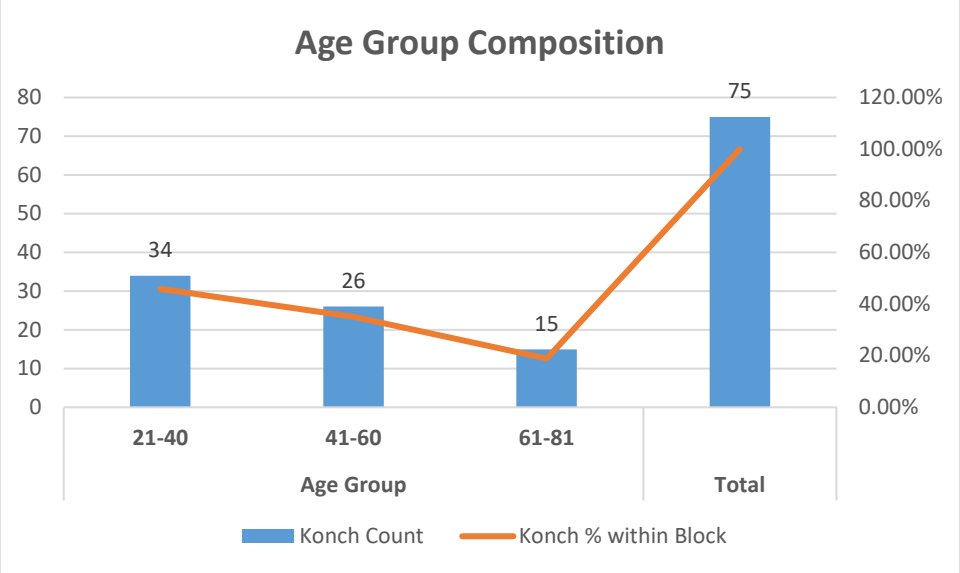
Key Finding: In-Depth Interviews, Focus Group Discussion and Key Informant Interview

Name of the FPO: Kabar Kisan Utpadak Sangathan Sahakari Samiti Ltd., Konch, Gaya District, Bihar

This chapter highlights the analysis of the primary data collected through In-depth interviews (IDI) with the shareholders, Focus group discussion (FGDs) with the community members and Key informant interview (KII) with the District Agriculture officer. The IDIs focused on generating information, income and livelihood sources of a farmer's household, land ownership details, agriculture practices adopted, crop production, irrigation facilities and reason for being a shareholder in FPO. The FGDs had community participation and the focus of discussion was to understand the awareness level and response of community towards the concept of FPOs. KII with the District Agriculture Officer was done for observing the support of Government in FPO strengthening and linkages with the flagship schemes. Hence, the chapter has three (3) sections with the analysis of IDIs, FGDs and KIIs.

Section 1: Key Findings of the IDIs with the shareholders.

Fig 1: Age Composition

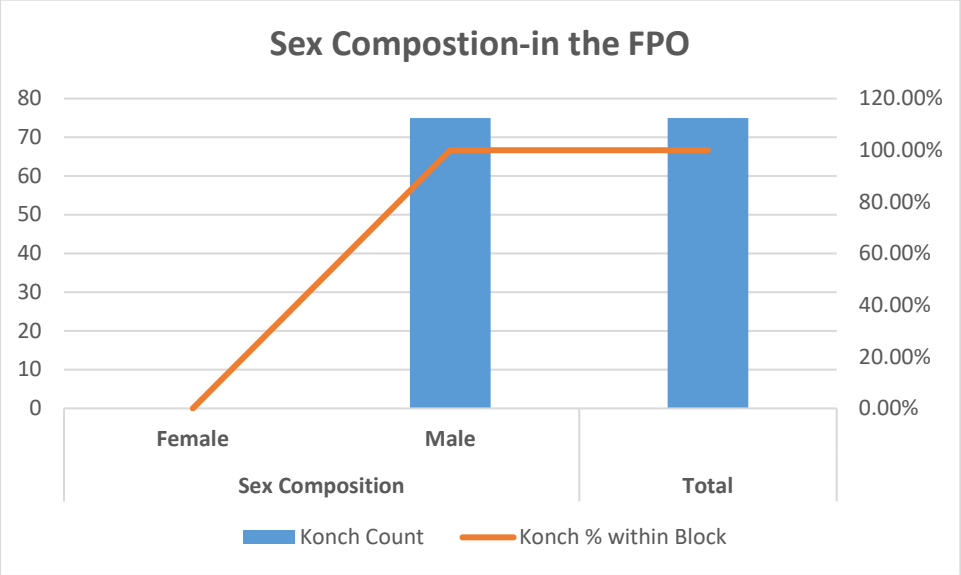


In the Konch block, the largest segment of the population falls within the 21-40 age group, comprising nearly 46% of the total. This indicates a relatively young and potentially active workforce. The 41-60 age group accounts for about 35%, representing a significant portion of mature adults who likely have considerable experience and established socio-economic roles. The elderly population, aged 61-81, makes up roughly 19%, which is a smaller segment but still important for considerations around healthcare, social support, and pension systems. Overall, the population distribution is skewed towards younger and middle-aged individuals, with around 81% being under 60 years of age. This demographic structure suggests potential for labor force growth and economic productivity, highlighting the need for policies and programs focused on employment, education, and skill development to support this dynamic population.

Planning Implications:

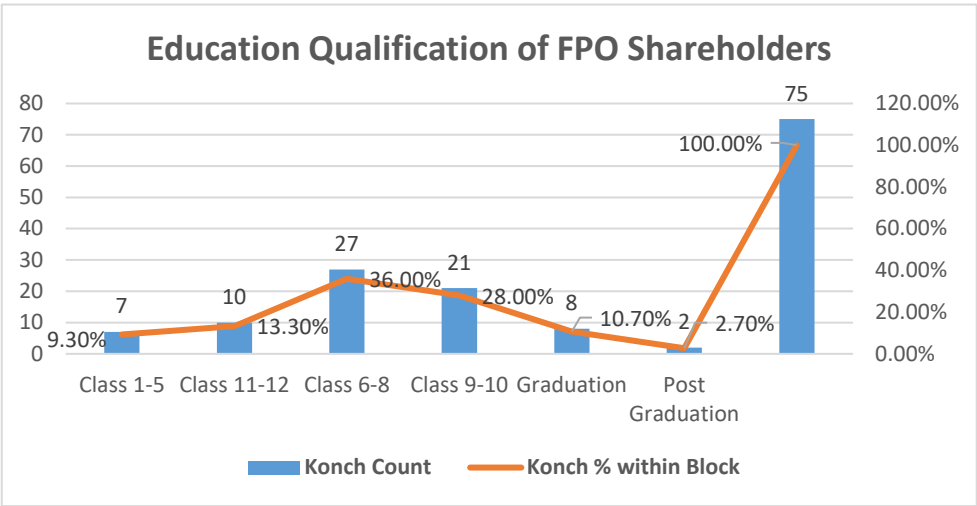
- Social services and infrastructure should focus more on the needs of the younger and middle-aged populations.
- Healthcare services need to cater to the aging population but are likely not yet under heavy pressure from a large elderly demographic.
- Skill development, employment generation, and educational programs could be prioritized for the 21-40 age group.

Fig 2: Sex Composition



In the Konch block, the data shows that the entire surveyed population consists exclusively of males, with no females recorded. This indicates a complete lack of female representation in the FPO, which may point to an underlying social and cultural factors that limit female participation or visibility in this context. Such a skewed sex composition can significantly affect the understanding of gender dynamics and may obscure the role or involvement of women in the area, especially if this data relates to activities like Farmer Producer Organizations (FPOs).

Fig 3: Education Qualification of FPO shareholders

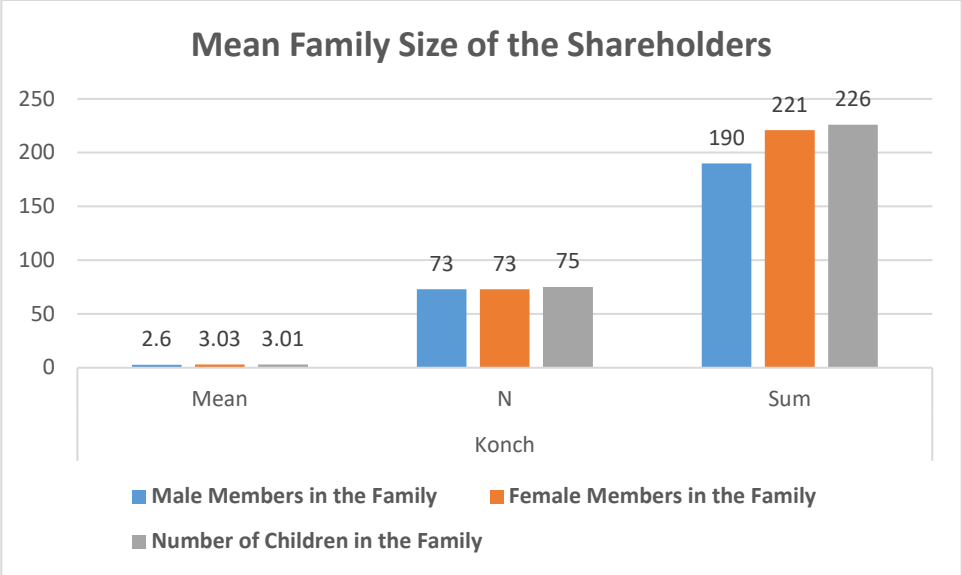


The majority of the population has attained education primarily at the middle to secondary school levels. Specifically, 36% have completed education up to Class 6-8, while another 28% have studied up to Class 9-10. This indicates that over 60% of individuals

have education within this middle school to secondary school range. A smaller proportion, around 9.3%, have education only up to the primary level (Class 1-5). Higher secondary education (Class 11-12) accounts for about 13.3%, and those with graduation or postgraduate degrees make up approximately 13.4% combined, with postgraduate qualifications being quite low at 2.7%.

The data suggests a significant drop in educational attainment beyond secondary school, highlighting potential barriers to continuing education past this stage. This distribution reflects the educational infrastructure and socio-economic factors influencing the area, and points to the need for targeted programs to encourage higher education and skill development in the Konch block.

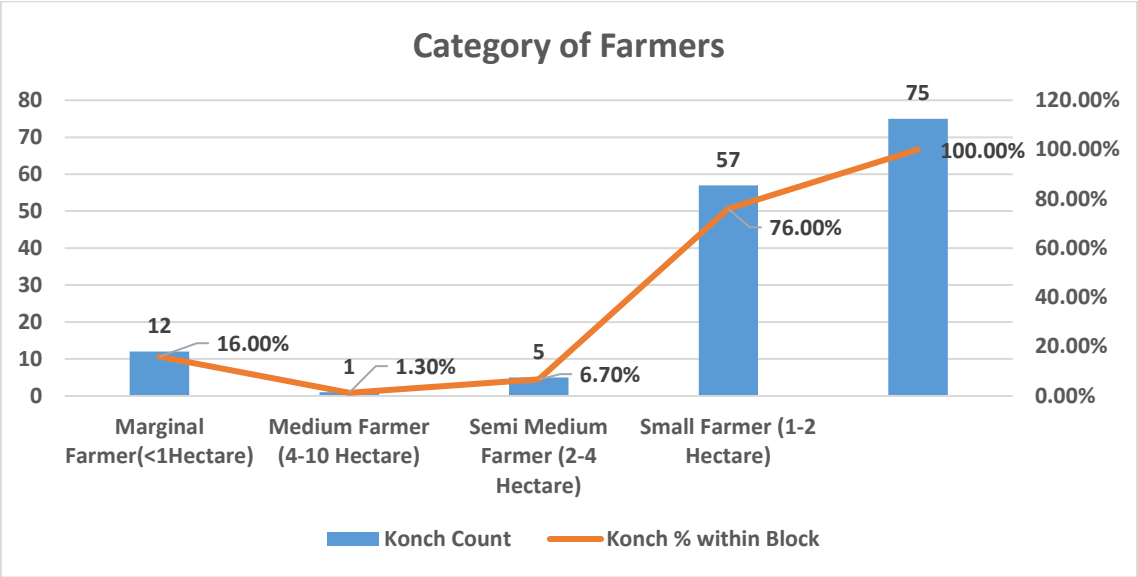
Fig 4: Family members in the household



The average family size reveals interesting demographic patterns. On average, each family consists of approximately 2.6 male members and 3.03 female members, indicating a fairly balanced gender distribution with a slight predominance of females. Additionally, families have about 3 children on average, reflecting relatively large household sizes typical of rural areas. Considering these figures together, the average household in Konch includes roughly 5 to 6 adults and 3 children, making for an overall family size of around 8 to 9 members. The sample data comes from 73 to 75 families, providing a reasonable basis for this assessment.

This suggests that families in Konch tend to be moderately large, with a near-equal number of male and female members and a notably high number of children per household. The gender ratio in adult members is close to equal, with a slight female majority. The number of children per family is quite high, indicating large family sizes typical of rural households.

Fig 5: Category of Farmers



Dominance of Small Farmers:

- Small farmers (holding between 1-2 hectares) form the majority, constituting 76% of the total farmers in the block. This indicates that the agricultural landscape is largely dominated by small-scale farming units.

Marginal Farmers:

- Marginal farmers (less than 1 hectare) make up 16%, which is a significant proportion, suggesting many farmers operate on very small plots of land. These farmers often face challenges such as limited income, lack of access to technology, and vulnerability to economic shocks.

Semi Medium and Medium Farmers:

- Semi medium farmers (2-4 hectares) account for 6.7%, and medium farmers (4-10 hectares) represent only 1.3%. This small percentage indicates that larger landholders are rare in this block.

Implications:

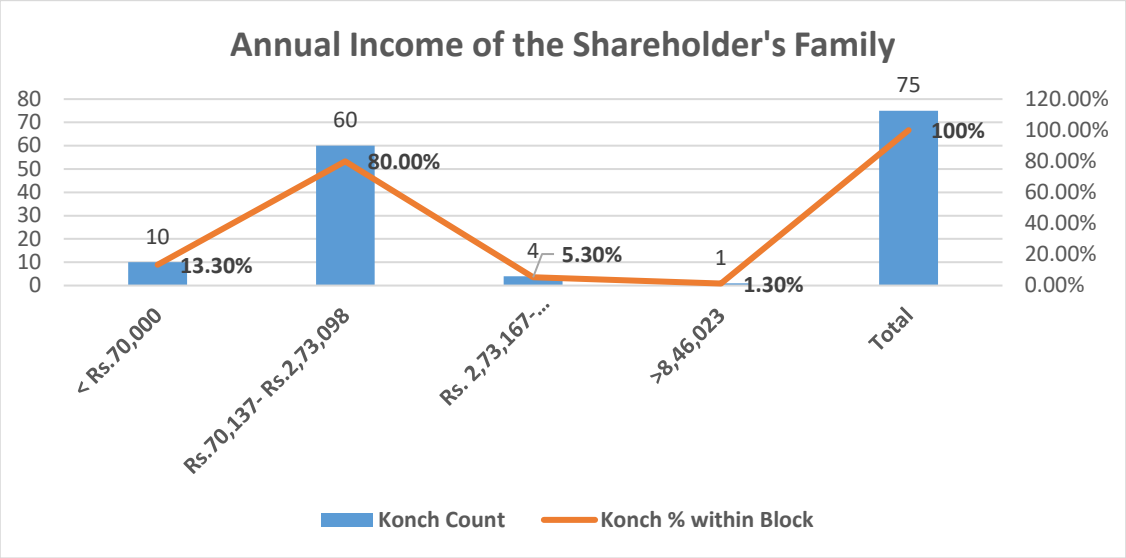
- Policy Focus: Given the predominance of small and marginal farmers, policies and programs should prioritize support for these categories through access to credit, improved inputs, training on modern farming techniques, and market linkages.
- Farmers Producer Organizations (FPOs): Formation of FPOs targeting small and marginal farmers could help improve their bargaining power, access to inputs, and overall income.
- Resource Allocation: Extension services and infrastructure development should be designed to cater mainly to small landholding farmers to maximize impact.

Recommendations

- Focus on Small and Marginal Farmers: Since 92% (76% small + 16% marginal) of farmers are small or marginal landholders, design targeted interventions to improve their productivity and income.

- Provide subsidized access to quality seeds, fertilizers, and equipment that are suitable for small-scale farming.
- Promote Farmer Producer Organizations (FPOs): Encourage formation and strengthening of FPOs mainly comprising small and marginal farmers to enhance collective bargaining power and reduce input costs.
- Use FPOs as a platform for aggregating produce to access better markets and negotiate fair prices.
- Facilitate Access to Credit and Insurance: Facilitate small and marginal farmers' access to low-interest loans and crop insurance to reduce vulnerability to crop failure or market fluctuations.
- Infrastructure and Technology Support: Invest in small-scale irrigation systems, storage facilities, and post-harvest processing units accessible to small farmers.
- Promote affordable technology solutions (e.g., mobile-based advisory services) to enhance farm management.
- Market Linkages and Price Support: Develop direct market linkages, removing intermediaries to ensure better price realization for smallholders.
- Explore government schemes and support systems for minimum support price (MSP) or guaranteed procurement for key crops grown by these farmers.
- Encourage Crop Diversification and Value Addition: Support small and marginal farmers to diversify into high-value crops or allied activities (e.g., horticulture, poultry) to increase income.
- Facilitate training and market access for value-added products to enhance profitability.

Fig 6: Annual Income of the shareholder



Key observation as per the information collected, highlights the fact that majority of the shareholders fall in the low-mid income category.

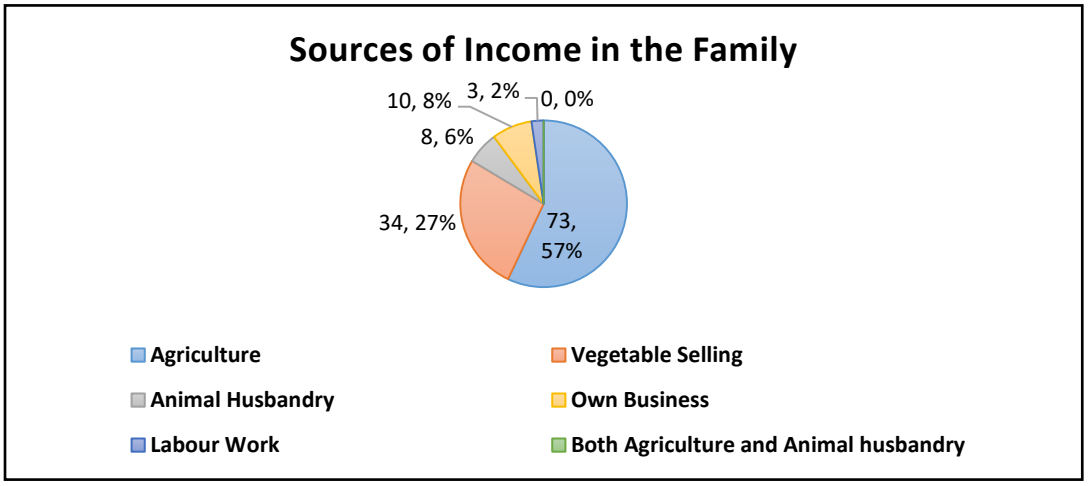
- **Majority in Low-Mid Income Bracket**: A significant 80% of farmers in Konch block fall within the annual income bracket of ₹70,137 to ₹2,73,098, indicating that most farmers operate with modest income levels, likely reflecting smallholder farming.

- **Below Poverty Line:** 13.3% of the farmers earn less than ₹70,000 annually, which may place them below or close to the poverty line, depending on household size and local cost of living.
- **High-Income Farmers Are Rare**: Only 1.3% (1 farmer) earns more than ₹8.46 lakh annually, suggesting that high-value or commercial-scale agriculture is rare in this block.
- **Middle-Upper Income Group is Marginal**: Only 5.3% of farmers fall in the ₹2.73 lakh to ₹8.45 lakh category, indicating limited participation in diversified or higher-value agricultural activities.

Implications for FPO Interventions:

- Targeted Support: The majority of farmers are in the lower income group; FPOs can be instrumental in aggregating produce, improving market linkages, and enabling input credit access to improve their income.
- Capacity Building: There is a need for capacity building and upskilling in value-added farming and post-harvest management to help move farmers up the income ladder.
- Credit and Insurance Access: Financial products tailored for low-income farmers should be promoted.

Fig 7: Sources of Income



The above figure indicate that agriculture is the dominant source of income, with 73 households primarily dependent on it. This heavy reliance on agriculture suggests a vulnerability to climatic variations, price fluctuations, and market-related challenges, making household incomes less resilient. A significant number of households (34) are engaged in vegetable selling, indicating some level of diversification within agriculture and potential market linkages. However, only 8 households are involved in animal husbandry, and none report combining agriculture with animal husbandry—highlighting an underutilization of integrated farming practices that could enhance income stability and resource efficiency. The presence of only 10 households in own business and just 3 in labour work further reflects limited non-farm employment opportunities and a weak entrepreneurial ecosystem in the region.

Recommendations:

a. Diversification of Livelihoods

- Promote integrated farming systems combining crops, livestock, and horticulture.
- Support multi-source incomes to reduce dependency and improve resilience.

b. Strengthening Animal Husbandry

- Introduce programs for dairy, goatery, or poultry with access to vet care, feed, and markets.
- Train farmers in fodder management, breed improvement, and disease prevention.

c. Market Access & Aggregation

- Facilitate FPOs or SHGs to aggregate produce (especially vegetables) and negotiate better prices.
- Develop linkages to nearby mandis, cold chains, or agri-processing units.

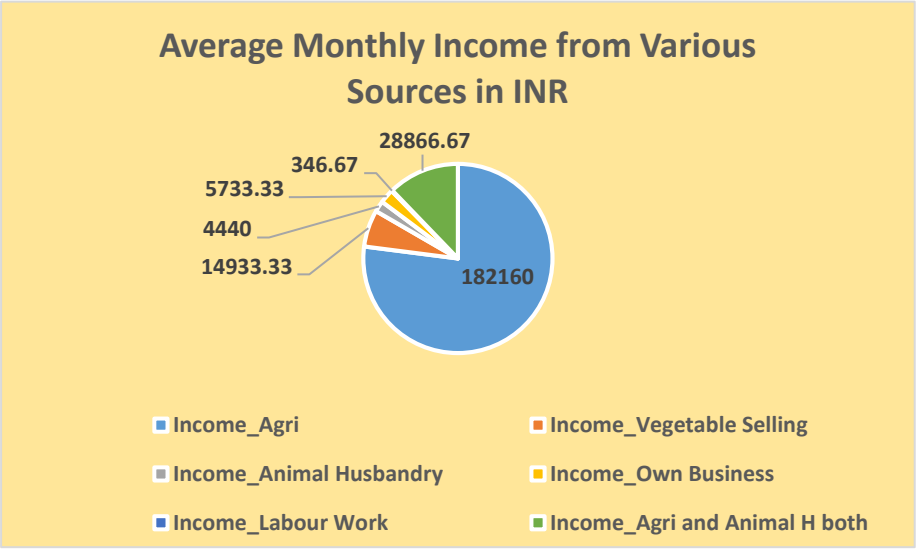
d. Non-Farm Livelihood Promotion

- Introduce skill-building programs (e.g., tailoring, food processing, digital services).
- Provide microfinance or seed capital to boost micro-enterprises.

e. Policy & Institutional Support

- Strengthen extension services to guide farmers on best practices.
- Collaborate with government schemes like NRLM, DAY-NULM, and Dairy Development Board.

Fig 8: Average Income from various sources



The economic base of households in Konch block is heavily dependent on agriculture, with other sources providing marginal support. The combination of agriculture and animal husbandry shows some promise but requires further support to become a viable integrated livelihood model. There is scope to enhance incomes from non-farm sources like vegetable selling, own business, and animal husbandry through capacity building, market linkages, and value addition.

Primary Source – Agriculture:

- The highest average income comes from agriculture (₹182,160), indicating it is the main livelihood source for most households.
- This amount significantly surpasses all other sources, highlighting the centrality of farming in the local economy.

Secondary Sources – Vegetable Selling & Agri-Animal Combo:

- Vegetable selling provides a modest supplementary income (₹14,933.33), suggesting small-scale or seasonal vegetable cultivation.
- Households engaged in both agriculture and animal husbandry earn an average of ₹28,866.67. While this is higher than income from animal husbandry alone, it still constitutes only a fraction of the income from standalone agriculture.

Low Contribution – Animal Husbandry, Own Business & Labour:

- Animal husbandry alone yields a relatively low average income (₹4,440), indicating it is not a significant standalone source.
- Own businesses provide a slightly better average income (₹5,733.33), suggesting limited entrepreneurial activity.

Labour work contributes the least (₹346.67), showing it is either very infrequent or low-paying in the region.

Recommendations

1. Strengthen and Sustain Agricultural Productivity

- Since agriculture is the primary income source, efforts should focus on:
- Improved access to quality seeds, fertilizers, and irrigation.
- Training in modern and climate-resilient farming techniques.
- Promotion of crop diversification to reduce risks and increase income potential.
- Encouraging collective input procurement and output marketing through Farmer Producer Organizations (FPOs).

2. Promote High-Value Vegetable Cultivation

With an average income of ₹14,933.33, vegetable selling is a promising supplementary income source.

Recommendations:

- Promote off-season and high-value vegetables under protected cultivation (e.g., polyhouses, low tunnels).
- Facilitate direct market linkages (e.g., local markets, institutional buyers).
- Provide training on post-harvest handling and storage to reduce losses.

3. Boost Income from Animal Husbandry

The low average income from animal husbandry (₹4,440) suggests underutilization.

Steps to enhance:

- Introduce improved livestock breeds with higher productivity (milk, meat, eggs).
- Provide veterinary support, feed management training, and access to credit for livestock purchase.

- Link farmers to dairy cooperatives or local meat/poultry markets.

4. Support Integration of Agriculture and Animal Husbandry

- Households combining both earn more than from animal husbandry alone.
- Promote integrated farming systems (e.g., crop-livestock-poultry models) to improve resource use efficiency and increase resilience.
- Develop micro-enterprises around agri-animal linkages (e.g., vermicomposting, biogas).

5. Encourage Micro and Small Enterprises

Income from own business is modest (₹5,733), indicating limited scale.

Recommendations:

- Promote rural entrepreneurship through skill development in trades such as food processing, tailoring, repair services, etc.
- Facilitate access to credit and market information for small entrepreneurs.
- Leverage government schemes like PMEGP, MUDRA loans, and support through SHGs or FPOs.

6. Address Underemployment in Labour Sector

Very low income (₹346.67) from labour work implies limited employment opportunities or very low wages.

Suggestions:

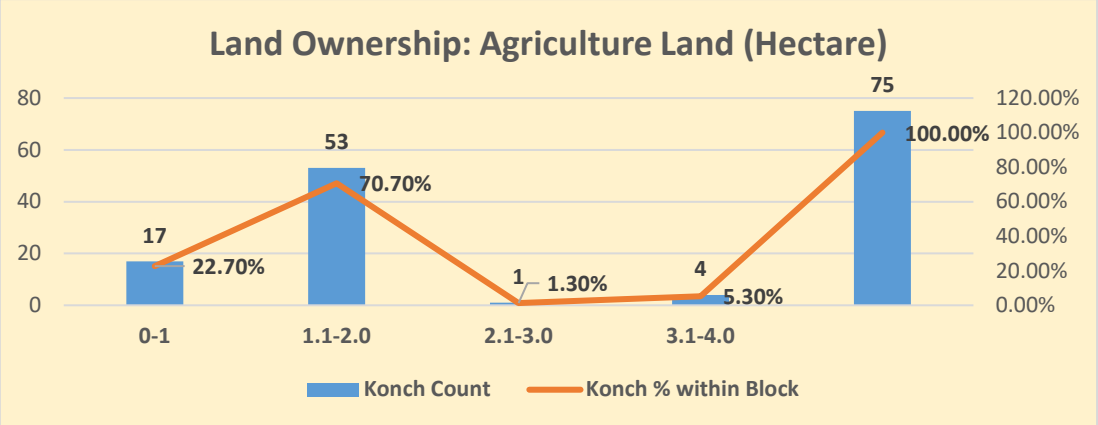
- Link eligible households to MGNREGA and other public works schemes to ensure minimum income support.
- Provide vocational training to enhance employability in local or regional labour markets.

7. Strengthen FPOs and Collective Action Platforms

Mobilize farmers into FPOs for:

- Collective input purchase and output marketing.
- Facilitating access to credit, insurance, and government schemes.
- Promoting value addition and agri-processing activities.

Fig 9: Land Ownership



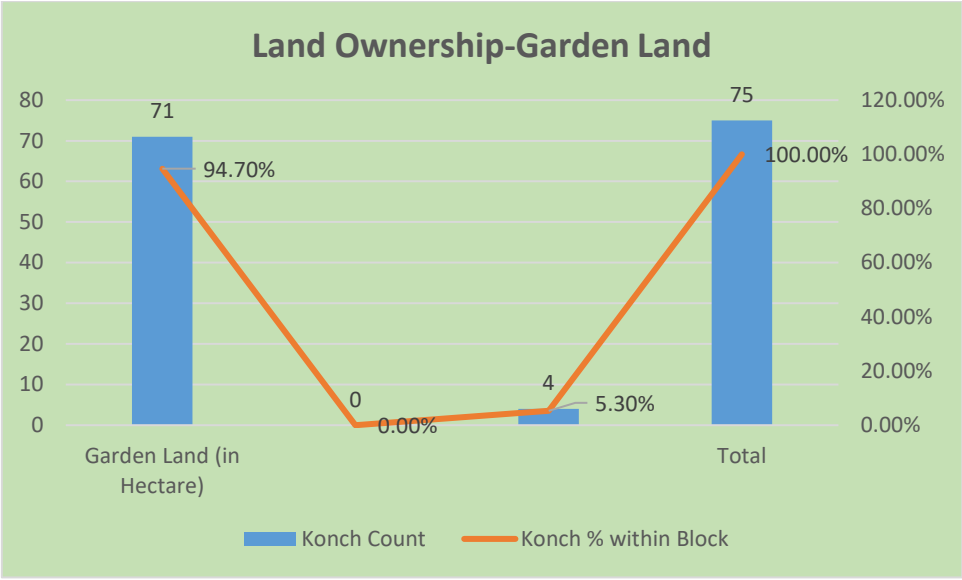
The distribution of agricultural land among farmers indicates a predominance of small landholdings. Out of a total of 75 farmers surveyed, the majority—70.7%—own land in the range of 1.1 to 2.0 hectares. Additionally, 22.7% of farmers possess less than one hectare of land. Together, this means that over 93% of the farmers operate on holdings below 2 hectares, highlighting the dominance of marginal and small-scale farming in the area. In contrast, only a small fraction of farmers owns larger plots, with just 1.3% owning between 2.1 and 3.0 hectares, and 5.3% owning between 3.1 and 4.0 hectares. This pattern suggests that medium to large-scale farming is rare in the Konch block.

These findings have important implications for agricultural planning and intervention. Given the high proportion of smallholders, there is a strong case for promoting collective approaches such as Farmer Producer Organizations (FPOs) to improve access to inputs, credit, and markets. Moreover, extension services and capacity-building efforts should be tailored to address the specific challenges faced by small-scale farmers in order to enhance productivity and sustainability.

Implications for Agricultural Interventions & FPO Formation

- Targeted Support for Smallholders: Since over 90% of the farmers are smallholders, interventions should focus on capacity building, input support, aggregation for economies of scale, and market access.
- FPO Viability: The land distribution supports the case for forming Farmer Producer Organizations (FPOs) that can pool resources for better bargaining power.
- Customized Extension Services: Programs like training, crop diversification, or soil health management should be tailored to the needs of farmers with 0–2 hectares.

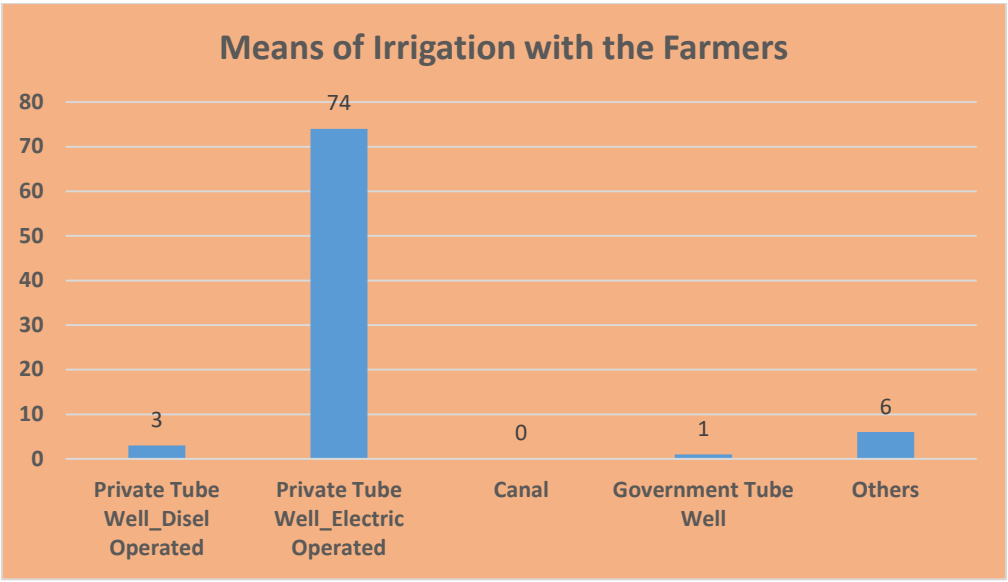
Fig 10: Land ownership-Garden land



The ownership of garden land among farmers is predominantly limited to very small holdings. Out of 75 farmers surveyed, 94.7% own garden plots of less than 1 hectare, while only 5.3% have holdings greater than 5.1 hectares, and none fall within the medium-size range of 1.1 to 2 hectares. This skewed distribution indicates that horticultural activities are largely subsistence-oriented, with limited potential for individual commercial-scale cultivation. The absence of medium-sized landholdings

further highlights the fragmentation of garden land, which may hinder efficient resource utilization and adoption of improved technologies. The small scale of operations underlines the need for collectivization through Farmer Producer Organizations (FPOs) or similar institutions to enable shared access to inputs, infrastructure, and markets. Additionally, targeted support such as irrigation facilities, quality planting material, and training on best practices can help improve the productivity and economic viability of these small garden landholdings.

Fig 11: Means of Irrigation with shareholders

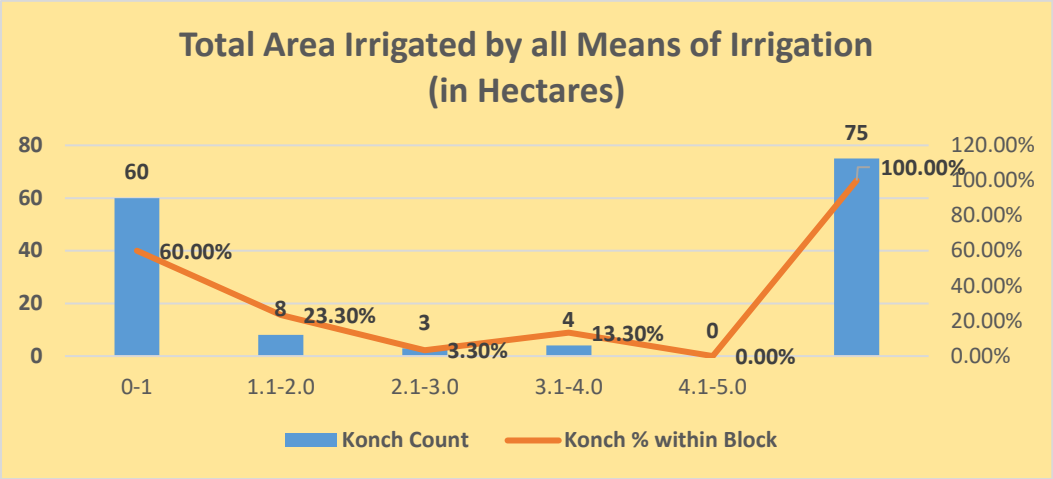


Irrigation is predominantly reliant on private electric-operated tube wells, which account for the majority of irrigation sources, indicating relatively good access to electricity and groundwater. The minimal use of diesel-operated tube wells and the complete absence of canal irrigation suggest limited diversity in water sources and possible cost or infrastructure constraints. The scarcity of government-operated tube wells highlights a gap in public irrigation support. This heavy dependence on private electric pumps raises concerns about the sustainability of groundwater resources, as over-extraction may lead to depletion over time. Additionally, high operational costs could marginalize small farmers who may struggle to afford electricity and maintenance expenses. The presence of a few "other" irrigation methods points to some diversity but remains limited.

Recommendations

- Promote sustainable groundwater use: Encourage water-saving irrigation techniques like drip and sprinkler systems to mitigate groundwater depletion.
- Strengthen canal infrastructure: Assess feasibility for canal irrigation expansion to diversify water sources and reduce groundwater stress.
- Increase public investment: Government should increase investment in irrigation infrastructure, especially for marginal farmers.
- Support energy access: Ensure affordable and reliable electricity supply for irrigation pumps, while exploring renewable energy options.
- Enhance farmer awareness: Conduct training on efficient water use and maintenance of irrigation equipment.

Fig 12: Total Area irrigated by all means



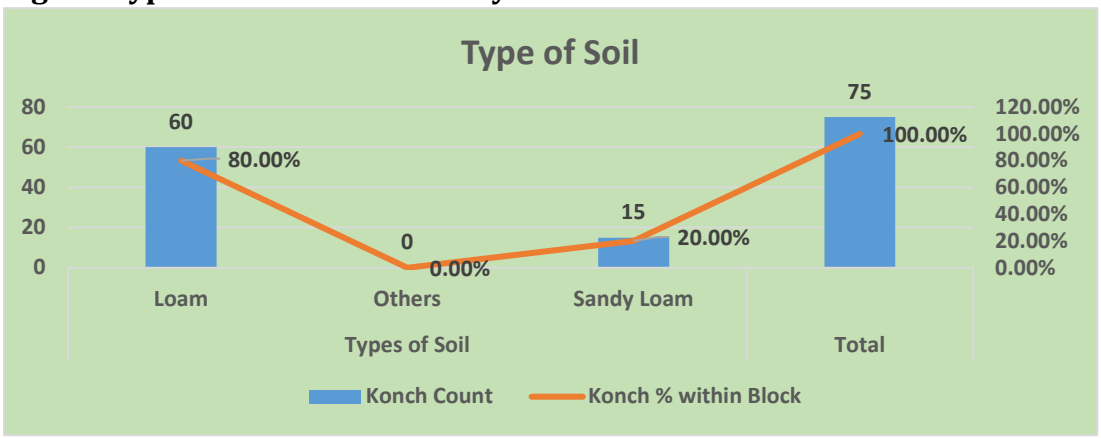
Key observations:

- Majority of the area irrigated is small-scale: 60 out of 75 cases (80% of total count) have irrigation area up to 2 hectares (0-1 and 1.1-2.0 categories combined). Specifically, 60% of irrigated areas are very small (0-1 hectare).
- Small to medium irrigation area: 8 cases (23.3%) fall within the 1.1 to 2 hectares range. This suggests a significant portion of farmers or land parcels are irrigating between one to two hectares.
- Larger irrigation areas are limited: Only 7 cases (9.3%) irrigate more than 2 hectares (combining 2.1-3.0 and 3.1-4.0 categories), with no instances beyond 4 hectares.

Implications:

- The predominance of small irrigated areas could indicate fragmented landholdings or limited access to irrigation infrastructure.
- There may be potential for improving irrigation efficiency or scaling up irrigation facilities for medium-sized holdings.
- Policy or program interventions may need to focus on supporting small-scale irrigation systems and promoting expansion where feasible.

Fig 13: Type of Soil-as informed by shareholders

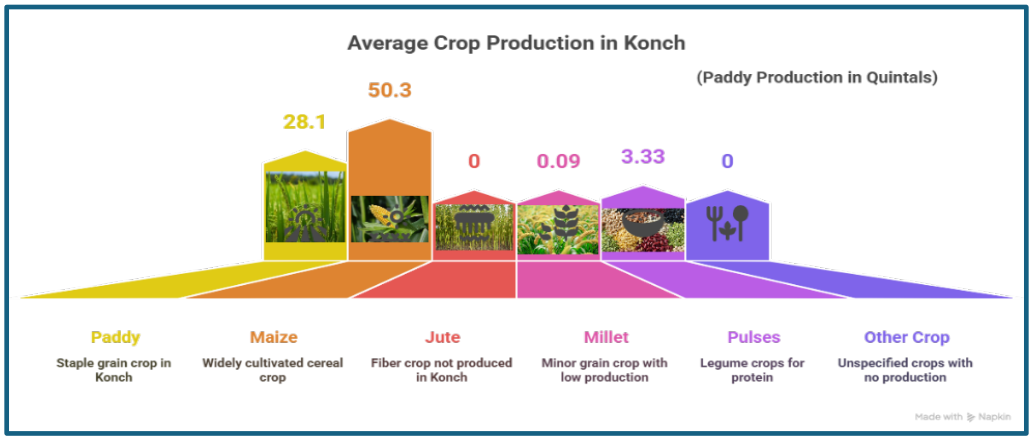


Farmers in the Konch block demonstrate a good understanding of their soil types, with 80% identifying their soil as loam and 20% recognizing sandy loam. This indicates that most farmers are aware of the dominant fertile soil type in their area, which is favorable for agriculture, while a smaller group can distinguish the slightly coarser texture of sandy loam. No other soil types were reported, suggesting either the absence of other soil variations or limited awareness about them. Overall, this reflects a moderate level of soil knowledge among farmers, which is important for making informed decisions about crop selection and soil management. However, there is potential to enhance their understanding through soil testing and awareness programs to promote better soil health and productivity.

Recommendations:

- Considering the absence of other soil types reported, there might be room for awareness programs to educate farmers about soil health, diversity, and management.
- Soil testing initiatives could complement farmers' indigenous knowledge, potentially identifying soil issues not apparent through observation alone.
- Training on soil conservation and improvement tailored to loam and sandy loam soils could help optimize agricultural productivity.

Fig 14: Average production of Kharif Crops



Average Kharif crop production in the Konch block reveals a strong dominance of paddy cultivation, with an average yield of 28.15 quintals per household, significantly higher than any other crop. This indicates that paddy is the principal Kharif crop in the region, likely due to favorable agro-climatic conditions, established farming practices, and possibly better irrigation facilities. In contrast, the production of maize (0.35 quintals), pulses (0.09 quintals), and other crops (3.33 quintals) is minimal, suggesting limited diversification in Kharif cropping. Notably, there is no recorded production of jute or millets, which could be attributed to either climatic unsuitability or a lack of economic or agronomic interest among farmers. The relatively low figures for crops other than paddy imply that while a few farmers may be cultivating alternative crops, the scale remains negligible. Overall, the data underscores the need to encourage diversification and promote the cultivation of alternative crops to enhance income resilience and sustainability in the Konch block.

Recommendations for balanced and sustainable agricultural system that mitigates the risks of mono-cropping and improves farmer livelihoods.

Promote Crop Diversification:

- Encourage farmers to diversify beyond paddy by introducing suitable alternative Kharif crops such as maize, pulses, and oilseeds. This can help improve soil health, reduce dependency on a single crop, and enhance income stability.

Strengthen Extension Services:

- Provide targeted training and capacity-building programs for farmers on best practices for cultivating non-paddy crops, including crop rotation, pest management, and efficient input usage.

Improve Market Linkages for Alternative Crops:

- Facilitate market access and minimum support prices for maize, pulses, and other potential crops to incentivize farmers to diversify their cropping patterns.

Demonstrate Model Plots:

- Establish demonstration plots for high-yielding and climate-resilient varieties of maize, pulses, and other crops to build farmer confidence and showcase the economic viability of alternatives to paddy.

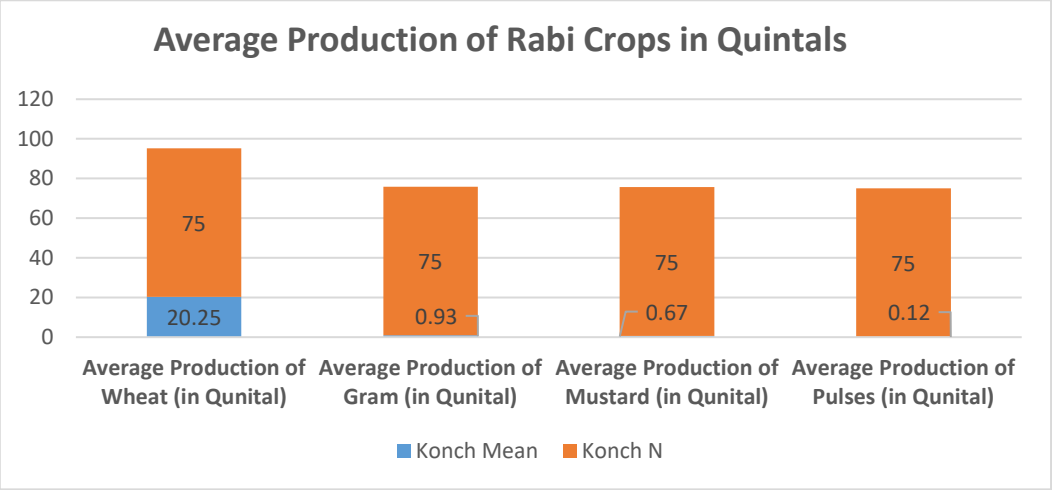
Enhance Irrigation and Input Support:

- Provide irrigation support, quality seeds, and fertilizers for alternative crops to reduce risk and promote adoption.

Soil and Water Testing:

- Conduct regular soil and water testing to recommend the most suitable crops and ensure optimal productivity while maintaining ecological balance.

Fig 15: Average Production of Rabi Crops



Average Rabi crop production in Konch block reveals a heavy reliance on wheat, with an average production of 20.25 quintals per farmer. In contrast, the average production of gram (0.93 quintals), mustard (0.67 quintals), and pulses (0.12 quintals) is significantly

lower. This indicates that wheat is the dominant Rabi crop in the region, while other crops are cultivated on a much smaller scale, possibly due to limited land allocation, lack of market incentives, or lower awareness and access to improved inputs for these crops.

This production pattern has several implications. The high dependence on wheat suggests a risk of monoculture, making farmers vulnerable to market price fluctuations, pest attacks, and climate-induced yield losses. The low cultivation of gram, mustard, and pulses indicates limited crop diversification, which not only reduces farmers' income opportunities but also negatively impacts soil health and nutritional security, as pulses are essential sources of dietary protein. Moreover, such trends suggest that the productivity of these minor crops may be low due to inadequate technical support, poor seed availability, or weak market linkages.

Recommendations

Promote Crop Diversification:

- Encourage intercropping and mixed cropping systems with pulses and oilseeds (e.g., wheat + gram/mustard).
- Provide training and extension support to farmers on alternative Rabi cropping systems.

Input Support for Minor Crops: Facilitate access to quality seeds, appropriate fertilizers, and pest management services for gram, mustard, and pulses.

Develop Market Linkages:

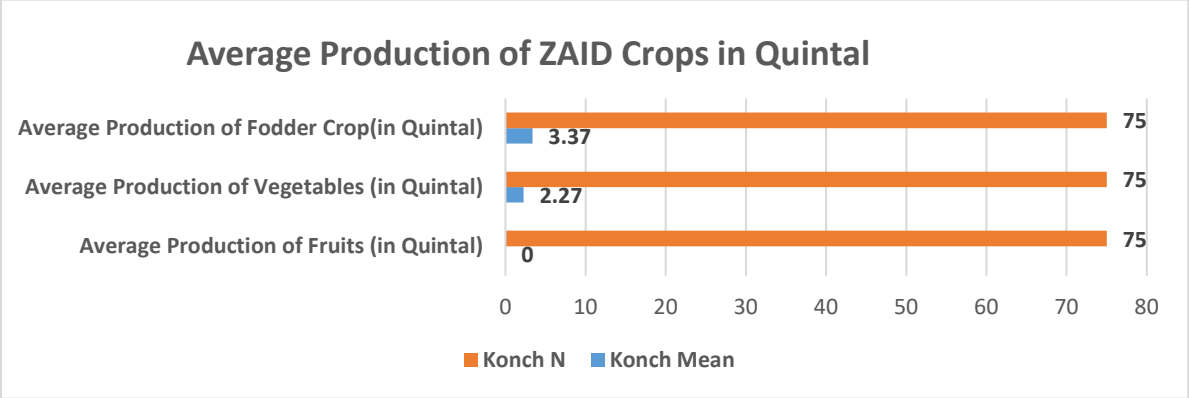
- Promote Farmer Producer Organizations (FPOs) to aggregate and market non-wheat crops.
- Identify and support value chains for gram, mustard oil, and pulses to improve returns.

Introduce Climate-Resilient Varieties: Encourage adoption of short-duration, drought- or pest-tolerant varieties of gram and mustard, especially suitable for residual soil moisture.

Soil Health Management: Promote the cultivation of legumes (pulses) to improve soil nitrogen content and reduce chemical fertilizer dependency.

Policy and Institutional Support: Target subsidies or schemes (e.g., NFSM, PMKSY) to incentivize cultivation of underperforming Rabi crops.

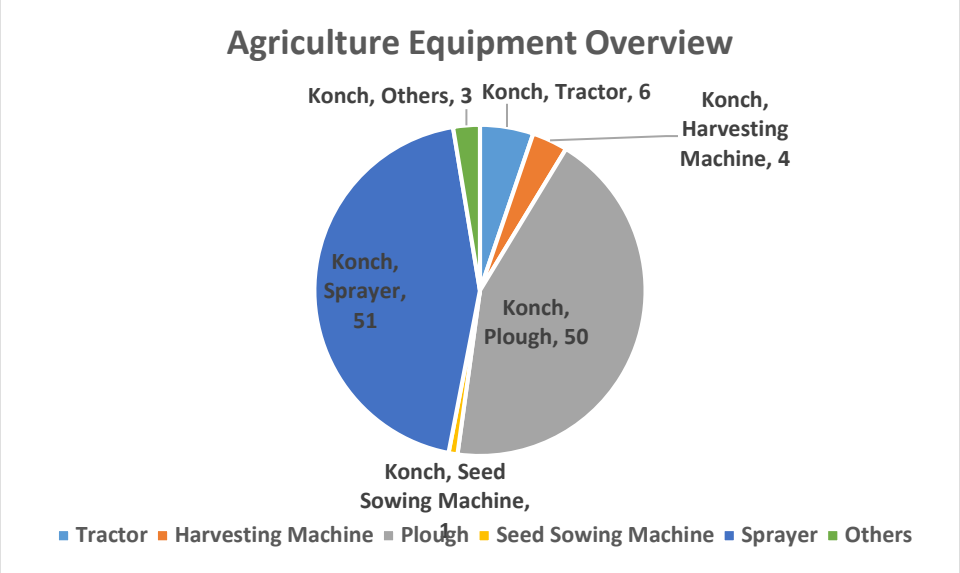
Fig 16: Average Production of ZAID crops



During the Zaid season in Konch block, the agricultural production pattern reveals a distinct preference for certain crop types. The data indicates that fruit cultivation is virtually absent, with an average production of 0.00 quintals, suggesting that fruits are either not suitable for this short cropping window or not economically viable for farmers in this region. In contrast, vegetable cultivation shows moderate activity, with an average production of 2.27 quintals per farmer.

This reflects the suitability of short-duration vegetable crops, such as gourds and cucumbers, which are well-adapted to the climatic conditions of the Zaid season. Notably, the highest average production is observed in fodder crops, at 3.37 quintals per farmer. This highlights the importance of livestock rearing in the local agricultural system and the strategic use of the Zaid season to cultivate fodder in preparation for the upcoming monsoon. Overall, the data suggests that while fruit cultivation is negligible, vegetable and fodder production play a significant role in the farming practices of Konch block during the Zaid season.

Fig 17: Availability of Agricultural Equipment with farmers

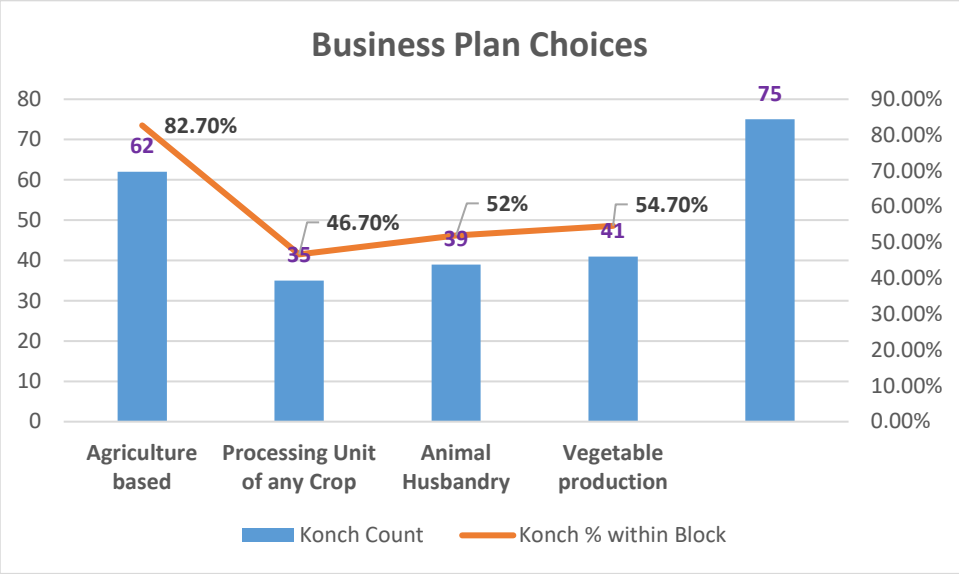


The availability of agricultural equipment among farmers reflects a moderate level of mechanization with significant gaps in key areas. There are only 6 tractors and 4 harvesting machines reported, indicating limited access to heavy farm machinery, which may be due to small landholdings or financial constraints. While the presence of 50 ploughs suggests that land preparation is widely practiced, it is likely that many of these are traditional or animal-drawn, rather than tractor-mounted. The number of seed sowing machines is critically low at just 1, highlighting a major gap in mechanized sowing practices and suggesting a reliance on manual methods, which are labor-intensive and time-consuming. Conversely, the high number of sprayers (51) indicates that farmers are actively engaged in plant protection and input application, possibly reflecting greater awareness of crop care practices. The category labeled "Others" includes only 3 units, which may represent tools like threshers or irrigation equipment, though further clarification is needed.

Overall, the analysis suggests that while some basic tools are prevalent, there is a clear need to improve access to modern agricultural machinery—particularly tractors, seeders,

and harvesters—through interventions like custom hiring centers, training programs, and support for equipment financing.

Fig 18: Business Preferences of the shareholders



The majority of farmers (82.7%) identify agriculture-based business as their primary choice of livelihood, highlighting the continued reliance on traditional farming activities. As a second preference, 46.7% of respondents expressed interest in establishing or participating in processing units for crops, indicating a moderate inclination toward value addition beyond primary agriculture. Animal husbandry emerges as a significant supplementary business, with 52% of farmers ranking it as their third choice, reflecting its role in income diversification.

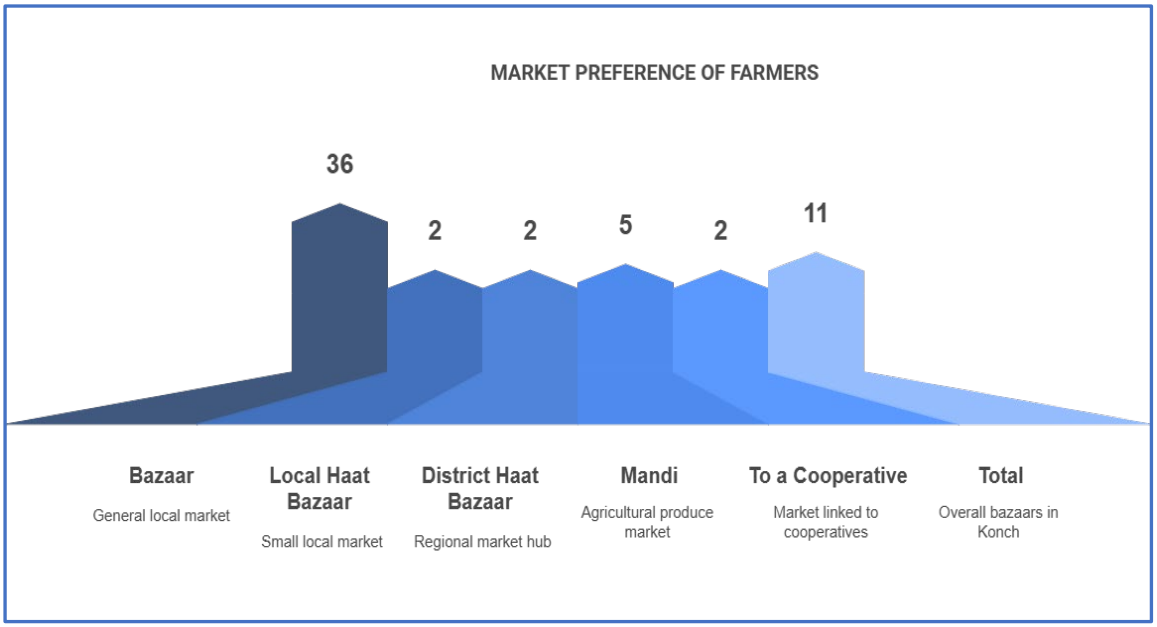
Vegetable cultivation, although relevant, is considered the least prioritized option, with 54.7% of farmers placing it as their fourth choice. Overall, while direct agriculture remains the dominant business activity, there is noticeable interest among farmers in exploring processing and livestock opportunities to diversify their income sources.

Recommendations:

- It is essential to leverage existing government schemes such as the Central Sector Scheme for Farmer Producer Organizations (FPOs) and the Pradhan Mantri Kisan Sampada Yojana (PMKSY), which promote agricultural value addition and processing units. Encouraging farmers to form or join FPOs can enhance collective bargaining power and facilitate access to credit, technology, and markets.
- Capacity-building programs under the National Livestock Mission (NLM) should be strengthened to improve animal husbandry practices, helping farmers diversify income sources sustainably. Additionally, introducing training programs through Krishi Vigyan Kendras (KVKs) and extension services focused on vegetable cultivation techniques could increase productivity and farmer interest in this sector.

- Collaboration with local agricultural banks such as the Bihar State Co-operative Bank can provide targeted financial support and low-interest loans to farmers for setting up processing units and expanding animal husbandry.

Fig 19: Market preference of Farmers for selling products

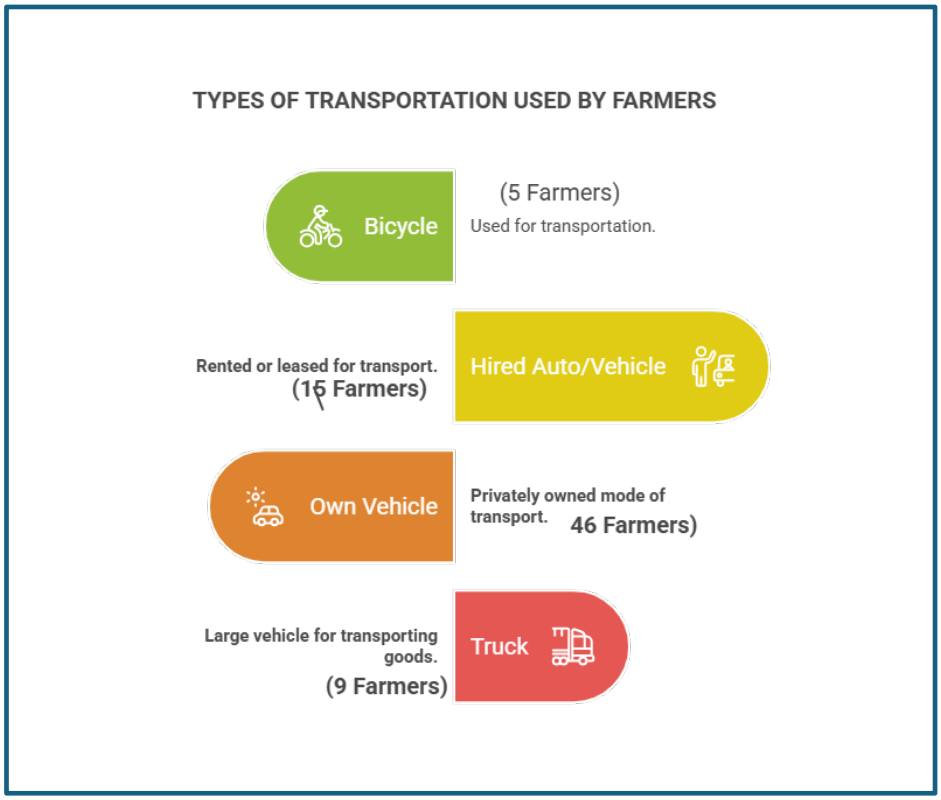


Key Insights:

- The majority (48%) of sellers prefer the Local Haat Bazaar exclusively as the primary market for selling their products.
- The next largest preference (14.7%) is a combination of Local Haat Bazaar and Mandi, indicating some sellers use multiple markets.
- Combinations involving Cooperatives also hold notable shares (6.7% Local Haat Bazaar + Cooperative, 8% Local Haat Bazaar + Cooperative), reflecting a moderate trust or reliance on cooperative markets.
- Pure District Haat Bazaar and Mandi alone are less favored individually.
- Some sellers use multiple market channels simultaneously (various combinations), suggesting diversification in market access strategies.

Local markets are the most accessible and convenient for sellers, likely due to lower transaction costs and established buyer-seller relationships. However, a notable share of producers also uses multiple market channels, indicating a strategy to diversify sales opportunities and mitigate risks associated with relying on a single market. While cooperatives play a moderate role, their limited preference suggests potential for strengthening these organizations to enhance producers' bargaining power and market reach. The relatively low reliance on District Haat Bazaars and Mandis points to possible barriers such as distance, cost, or lack of awareness, underscoring the need for improved infrastructure and connectivity.

Fig 20: Type of Transportation used by Farmers to market/sell products



The predominant mode of delivering products to the market is through the use of own vehicles, with 61.3% of respondents relying on this means. This indicates a considerable level of vehicle ownership or access among producers, allowing them greater control and flexibility in transporting their goods. The second most common method is hiring autos or vehicles, used by 20% of respondents, highlighting a reliance on external transportation services for those who may not own a vehicle or prefer to hire for cost or convenience reasons. A smaller proportion of producers use bicycles alone (6.7%) or in combination with other modes, suggesting that bicycles are mainly used for short distances or lighter loads. Mixed modes of transport, such as combining own vehicles with hired autos or bicycles, account for a minor share, reflecting varied logistical strategies among producers.

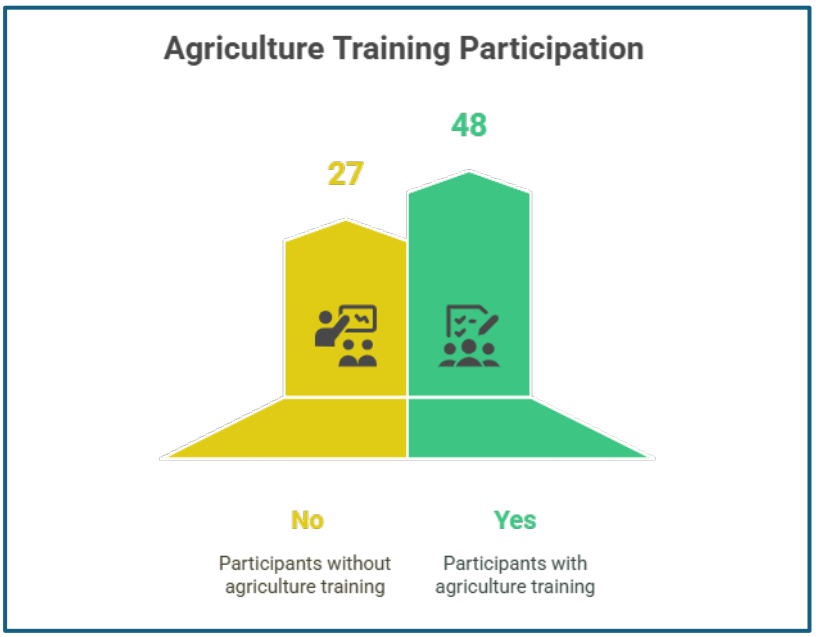
Implications:

- The heavy reliance on own vehicles indicates a certain level of investment in transportation infrastructure by farmers or producers.
- The use of hired vehicles by 20% suggests a potential market for transportation services and possibly a limitation in vehicle ownership.
- Low use of bicycles alone (6.7%) and in combination with own vehicles (5.3%) shows bicycles are either used for short distances or small quantities.

Recommendations:

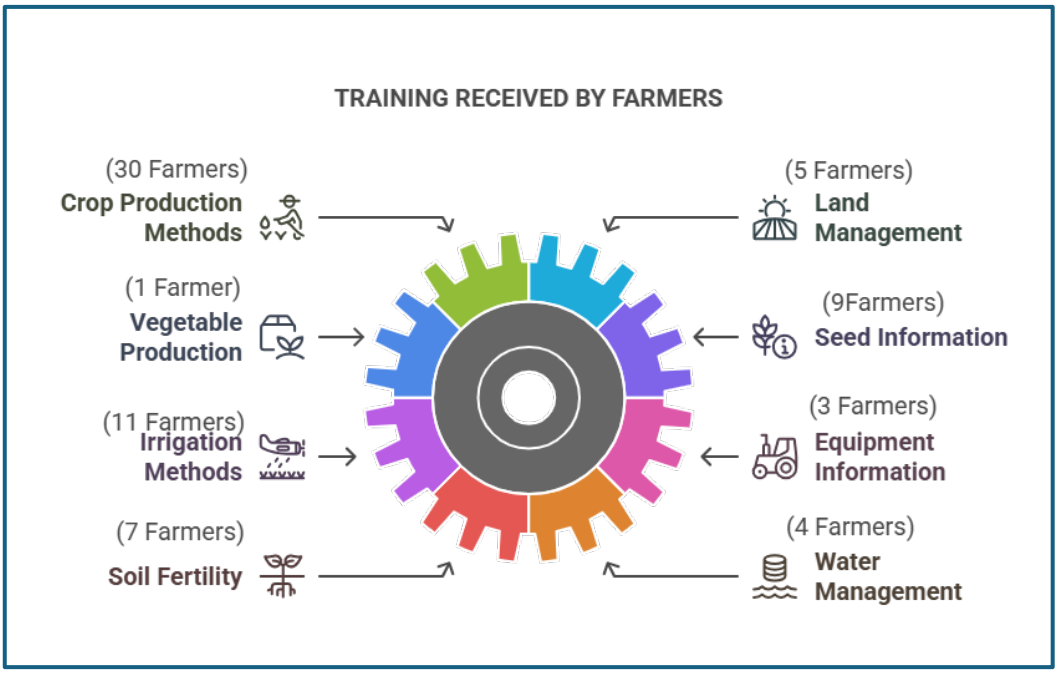
- For interventions or support programs, focusing on improving access to affordable transport (both owned and hired) could be beneficial.
- Programs promoting shared transport or cooperative vehicle ownership might help reduce costs for producers currently relying on hired vehicles.

Fig 21: Agriculture Training Participation



In Konch block, 64% of respondents reported having received agriculture-based training, while 36% had not. This indicates a relatively high level of exposure to capacity-building initiatives among farmers, which is a positive indicator for promoting Farmer Producer Organizations (FPOs). However, the sizeable proportion of untrained individuals highlights the need for targeted outreach and inclusive training programs to ensure that all farmers can equally benefit from and contribute to collective agricultural development.

Fig 22: Trainings received by Farmers-Subject



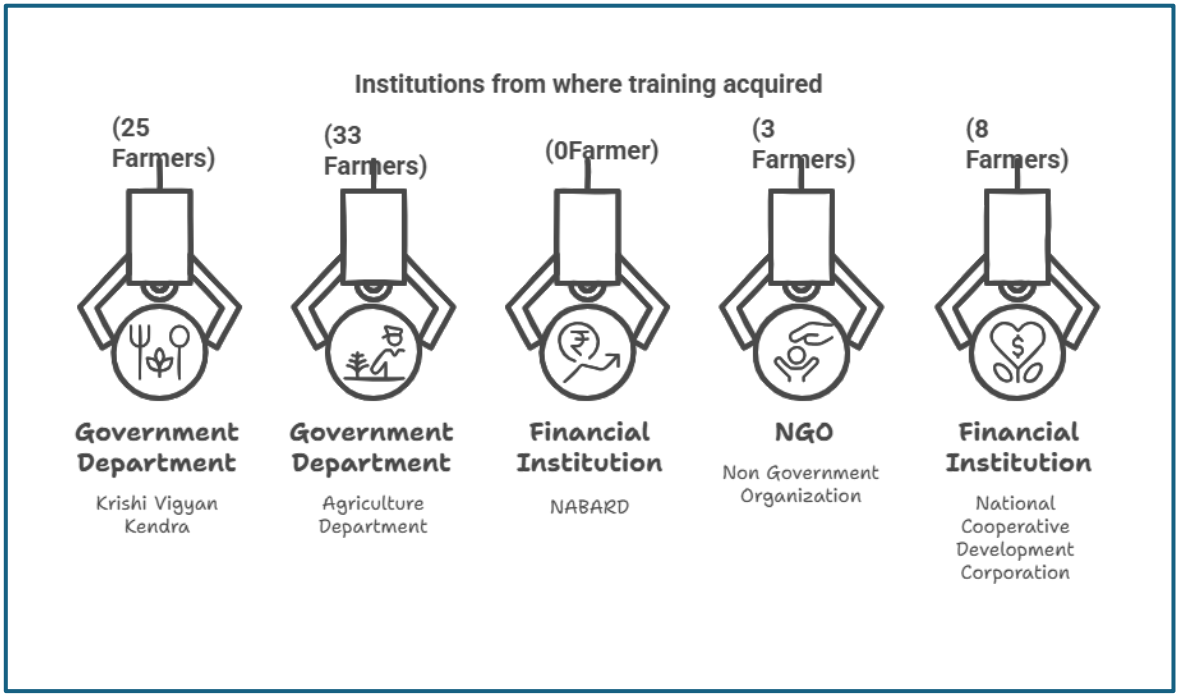
The data/information reveals that the highest number of sessions were conducted on crop production methods, with 30 trainings, indicating a strong focus on improving general agricultural practices among farmers. Irrigation methods and seed-related information also received considerable attention, with 11 and 9 trainings respectively, reflecting efforts to enhance productivity through better water management and the use of improved seed varieties. Moderate emphasis was placed on topics such as soil fertility (7 trainings), land management (5 trainings), and water management (4 trainings), suggesting a partial but insufficient focus on sustainable land and resource use. However, there appears to be limited attention given to vegetable production (only 1 training) and agricultural equipment (3 trainings), which are critical for diversification and modernization of farming practices.

Recommendation:

Given these patterns, it is recommended that future training programs adopt a more balanced approach across all thematic areas.

- Increasing training on vegetable production can support crop diversification and income enhancement, while greater focus on equipment usage can improve efficiency and reduce labor dependency.
- Strengthening knowledge around soil fertility and integrated water and land management will be essential for long-term sustainability and resilience, especially in the face of climate variability.
- Building on the current strengths in crop production, irrigation, and seed management, advanced trainings—such as those on drip irrigation systems, climate-resilient seed varieties, and organic farming techniques—can further empower farmers and enhance agricultural outcomes in the Konch block.

Fig 23: Institutions from where trainings acquired



There is a strong institutional presence of the Krishi Vigyan Kendra (25 units) and the Agriculture Department (33 offices), indicating a solid foundation for agricultural

extension and farmer outreach. However, the absence of NABARD is a critical gap, as it plays a key role in financing and supporting Farmer Producer Organizations (FPOs) and other rural development initiatives. The limited presence of NGOs (only 3) suggests a need for greater involvement from civil society organizations in mobilizing and building the capacity of farming communities.

While the National Cooperative Development Corporation (NCDC) has a moderate presence (8), its role in supporting cooperative and producer group activities could be further leveraged.

Recommendations:

Facilitate NABARD Involvement:

- Initiate dialogue with NABARD regional offices to begin outreach and intervention in Konch.
- Encourage the setting up of NABARD's FPO promotion programs (like PRODUCE Fund, FPO Financing) in collaboration with existing government infrastructure.

Strengthen NGO Participation:

- Encourage partnerships with NGOs that specialize in FPO formation, community mobilization, or rural livelihoods (e.g., PRADAN, BASIX, or local counterparts).
- Provide incentives for NGOs to expand operations to underserved blocks like Konch.

Leverage Existing Institutions:

- Utilize KVKs and Agriculture Department offices to:
- Identify progressive farmers for FPO formation.
- Conduct joint training programs for prospective FPO members.
- Integrate FPO agendas into existing agricultural extension plans.

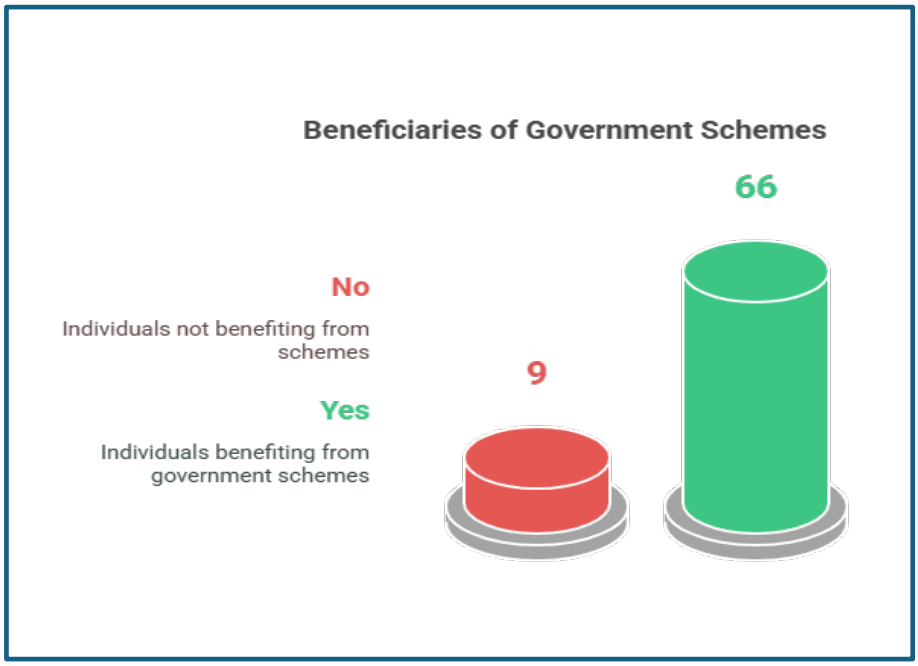
Enhance NCDC Collaboration:

- Explore the possibility of channeling NCDC support into value chain development, post-harvest infrastructure, and cooperative farming models.
- Promote convergence between NCDC initiatives and the Central Sector Scheme on FPOs.

Institutional Convergence:

- Create a local FPO promotion committee involving representatives from KVKs, Agriculture Department, NCDC, NGOs, and banks to coordinate efforts.
- Align all efforts with the goals of the Central Sector Scheme on FPOs.

Fig 24: Beneficiaries of Government Schemes



The above, reveals that a significant majority—88% of the surveyed individuals—have availed benefits from various government programs, while only 12% have not. This high level of participation indicates effective outreach and implementation of welfare schemes in the area. It reflects positively on the local administration's ability to ensure awareness, accessibility, and delivery of entitlements. However, the 12% who are not covered suggest the need for targeted interventions to identify and address barriers such as lack of awareness, documentation issues, or eligibility constraints.

Recommendations:

Deepen Coverage Among Non-beneficiaries:

- Conduct targeted outreach to identify reasons why the remaining 12% have not accessed benefits. Barriers could include lack of documents, awareness gaps, or eligibility issues.
- Use door-to-door surveys or gram sabhas to engage with these households.

Assess Scheme Impact:

- Initiate a follow-up evaluation to assess the effectiveness and actual impact of the schemes on livelihoods, income levels, and social well-being.
- Use the insights to fine-tune scheme design and delivery.

Digital and Inclusive Access:

- Promote digital literacy and access to digital platforms like the UMANG app or DBT (Direct Benefit Transfer) portals to improve accessibility.
- Ensure inclusion of vulnerable groups such as women, landless farmers, and marginalized communities in future scheme rollouts.

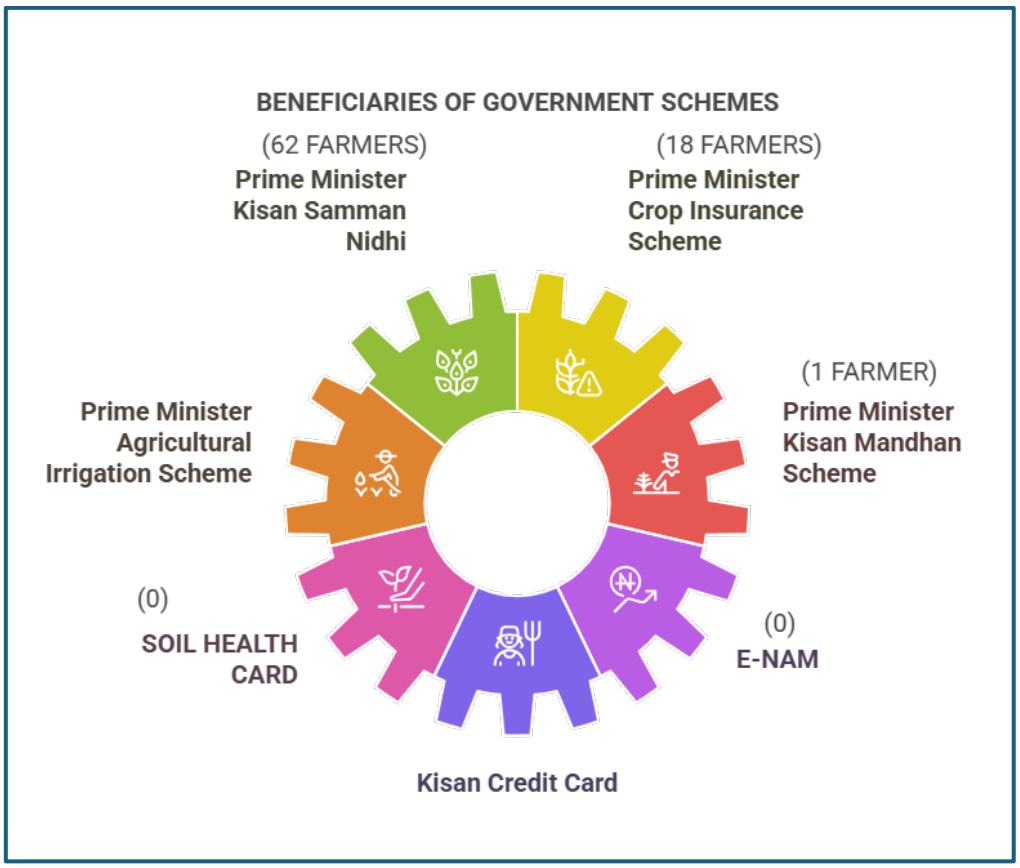
Strengthen Local Institutions:

- Encourage participation of local institutions like Panchayats and Farmer Producer Organizations (FPOs) in scheme awareness and beneficiary mobilization.

Capacity Building:

- Train local youth or volunteers as 'beneficiary facilitators' to guide villagers on eligibility, documentation, and application procedures.

Fig 25: Beneficiaries under different government schemes



Key Observations

High Uptake of PM-KISAN:

- The highest beneficiary count is under PM-KISAN, which suggests better awareness and ease of access for direct income support.
- Low Penetration in Other Schemes:
- Crop Insurance and Kisan Credit Card schemes have low adoption.
- Very low to zero uptake of the Agricultural Irrigation Scheme, Soil Health Card, and e-NAM indicates a lack of awareness or accessibility.

Negligible Awareness for e-NAM and Soil Health Card: No farmers are enrolled under e-NAM and Soil Health Card, despite their potential to improve market access and soil productivity.

Recommendations to Propagate Government Schemes

Awareness Campaigns:

- Conduct gram sabha meetings, training camps, and field demonstrations to raise awareness, especially for schemes like PMFBY, e-NAM, and Soil Health Card.

- Use community radio, posters in local markets, and mobile vans for broader outreach.

Farmer Facilitation Centers: Set up facilitation desks at Panchayat or Block level to assist farmers in applying for schemes and resolving documentation issues.

Digital and Mobile Platforms:

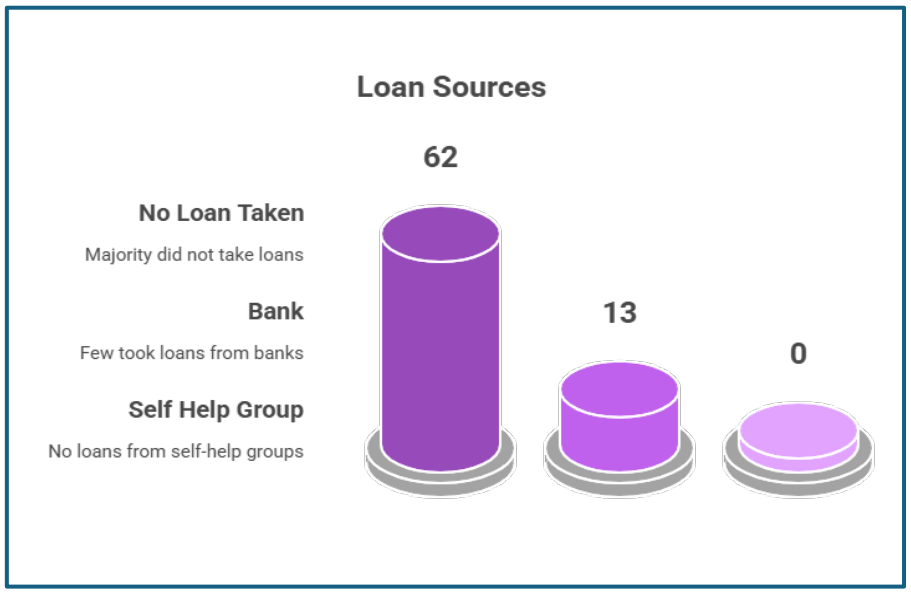
- Promote use of digital platforms via smartphones and CSCs (Common Service Centers) to register for schemes like e-NAM and KCC.
- Provide training on using e-NAM for better market prices.

Convergence with FPOs: Collaborate with existing or upcoming Farmer Producer Organizations to act as nodal points for scheme dissemination and uptake.

Local Success Stories: Highlight successful beneficiaries (especially from PM-KISAN and KCC) to build peer influence.

Incentives for Adoption: Offer small incentives (such as farm tools or seeds) for farmers who enroll in underutilized schemes like PMKSY or Soil Health Card.

Fig 26: Sources of Loan

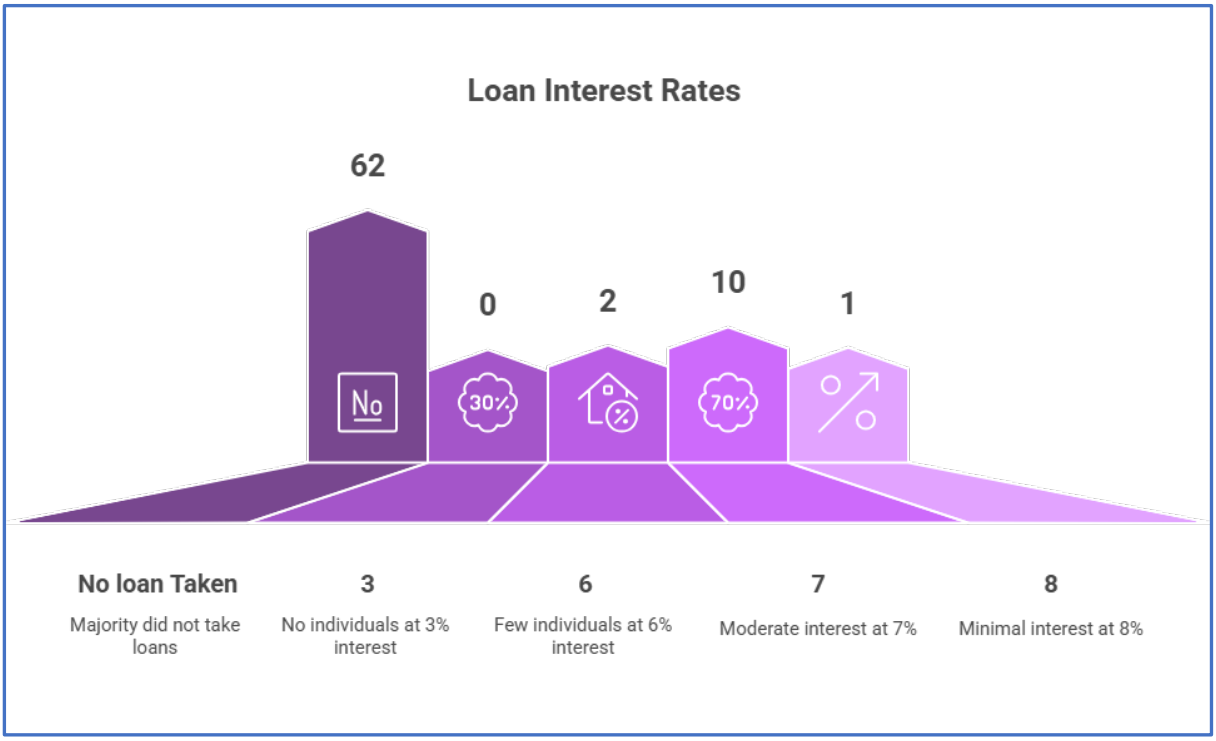


A majority of farmers (82.7%) reported not having taken any loans, indicating either limited reliance on credit or low awareness about borrowing options. Among those who did access credit, 17.3% obtained loans from banks, reflecting some degree of access to formal financial institutions, although the overall proportion remains low. Notably, no farmers reported borrowing from Self Help Groups (SHGs), which may suggest a lack of active SHG presence or awareness in the area.

Recommendations

- Need for Financial Inclusion Initiatives: The data suggests the need to enhance awareness and access to institutional credit among farmers.
- Scope to Promote SHGs: The complete absence of SHG-based loans presents an opportunity to introduce or strengthen SHG networks in Konch.

Fig 27: Interest Rate of Loans



The majority of farmers—82.7%—have not taken any loans, indicating that most farmers either do not depend on external credit or face challenges in accessing it. Among the small proportion of farmers who did take loans (17.3%), most borrowed at an interest rate of 7%, accounting for 13.3% of the total farmers surveyed. A smaller number took loans at 6% (2.7%) and 8% (1.3%), while no farmers reported borrowing at 3%. This distribution suggests that the 7% interest rate is the most common or accessible loan rate for farmers in this area. The low percentage of farmers utilizing credit could point to a reliance on personal funds, limited access to affordable formal credit, or a reluctance to take on debt.

Why Are You Associated with the FPO?

- Better Prices for Produce: Collective selling through the FPO secures higher market rates and better payment for your crops.
- Improved Access to Farming Knowledge: Receive trainings on organic, advanced, and improved farming techniques along with ongoing technical support.
- Cost-Effective Inputs: Bulk purchasing of seeds, fertilizers, and equipment reduces costs significantly.
- Easier Access to Government Schemes: Direct access to subsidies, schemes, and financial assistance through the FPO.
- Simplified Market Access: The FPO facilitates easier marketing and collective selling, improving market linkages.
- Mutual Cooperation and Networking: Connect with other farmers to share knowledge, experiences, and resources.
- Financial Support and Loans: FPOs help in obtaining agricultural loans and other financial assistance through bank linkages.
- Opportunities for Processing and Value Addition: Engage in crop processing activities that increase profitability and expand the value chain.

- Better Production Rates: Access to improved inputs and knowledge boosts crop yield and quality.
- Collective Buying and Selling: Increases profit margins by leveraging economies of scale.

Section 2: Response of Community towards FPO promotion. Tool: Focus Group Discussion.

Introduction

This report presents a synthesized summary of insights gathered through a Focus Group Discussion (FGD) with members of the Kabar Kisan Utpadak Sangathan Sahakari Samiti Ltd in Konch, Gaya. The FGD aimed to capture grassroot s-level experiences, perceptions, and challenges related to the functioning of the Farmer Producer Organization (FPO), as articulated by its smallholder members. The perspectives shared offer a candid reflection on the aspirations, systemic barriers, and emerging opportunities in rural agrarian livelihoods.

The discussion illuminated the nuanced realities of small and marginal farmers, highlighting both their optimism toward collective action and the pressing need for policy-practice convergence in FPO implementation. The conversation revealed a landscape shaped by resource constraints, knowledge gaps, and infrastructure limitations, but also by resilience, peer solidarity, and latent entrepreneurial energy. The findings herein serve as a diagnostic foundation for strengthening FPOs as vehicles of inclusive rural transformation.

1. Motivation for Joining the FPO: This section sheds light on the diverse motivations that drove farmers to become part of the FPO

To understand the drivers of member participation, the discussion opened with an inquiry into why farmers chose to join the FPO. A majority cited the collective bargaining power of organized groups as a key reason, hoping it would help them secure better prices for their produce and reduce exploitation by intermediaries. Trust in local leaders and the prospect of accessing government schemes also influenced their decision. Many joined on the assurance of institutional benefits such as subsidies and infrastructure, communicated by trusted local leaders. However, several members acknowledged joining out of peer influence or curiosity, with limited understanding of the FPO model or its long-term benefits.

2. Awareness and Formation Process: This section explored the process of FPO formation and the extent of prior sensitization efforts among prospective members.

Farmers expressed concern over the top-down approach in forming the FPO. Participants overwhelmingly reported a lack of comprehensive awareness or community mobilization. Initial information was conveyed through interactions with cooperative banks and officials, often lacking clarity. Many farmers perceived the enrolment process as a bureaucratic formality rather than a community-driven initiative resulting in widespread confusion about the organization's goals and potential benefits.

3. Training and Capacity Building: The conversation then turned to capacity development—specifically, the availability and adequacy of training for FPO members.

A critical finding was the complete absence of structured training for general members. While the chairperson had attended a state-level orientation, ordinary members remained uninformed about essential aspects such as organic practices, financial literacy, institutional credit, or agri-marketing. The absence of regular, localized training sessions has left most farmers dependent on outdated methods and middlemen for both finance and market access.

4. Membership Composition and Landholding Patterns: To gauge the inclusivity and socioeconomic makeup of the FPO, participants were asked about land ownership and farm types.

The FPO primarily consists of small and marginal farmers, with most owning modest plots of 1–2 hectares. A significant proportion lease land seasonally under informal arrangements that offer no security or continuity. Livestock ownership is widespread, serving as an auxiliary income source. This profile indicates a highly vulnerable but resilient farming community in need of support for stability and scale.

5. Nature of Farming Practices : A closer examination of prevalent agricultural practices revealed a dependence on conventional methods**.**

Farming methods remain traditional, with limited diversification or innovation. The predominant cultivation of rice and wheat reflects longstanding practices and the safety of government procurement, but also highlights a lack of exposure to crop rotation, organic inputs, or climate-resilient methods. Despite interest in alternatives like dairy or vegetable farming, poor access to technical guidance and infrastructure continues to hinder transition.

6. Land Tenure and Tool Availability: The discussion explored land security and access to mechanization.

Land tenure insecurity is a major issue for tenant farmers who risk losing access without notice. Approximately one-fifth of members rely entirely on leased plots, often surrendering a significant portion of their harvest as rent. Mechanization is limited—tools are basic, often shared or rented at high cost, and electricity interruptions undermine irrigation efforts, reducing overall farm efficiency and profitability.

7. Cropping Patterns and Financial Literacy: This section investigated cropping preferences and members' awareness of financial instruments

Farmers primarily grow rice and wheat due to the relative assurance of government procurement. However, their financial literacy is alarmingly low. Many are unaware of formal banking processes and rely on high-interest credit from local traders. The absence of financial inclusion measures and rural banking outreach remains a significant bottleneck in achieving economic security.

8. Membership Fees and Perceived Benefits

The FPO's ability to mobilize resources and offer trade benefits was discussed next. The ₹2,100 membership fee has only been paid by 60 out of 300 registered members, reflecting widespread scepticisms. Participants voiced concerns over the lack of visible returns, from their membership, citing the absence of tangible advantages such as market linkages or better pricing, with no discernible improvement in trade terms or buyer access. This has led to disillusionment and undermined trust in the FPO as a viable support system.

9. Agri-Business Opportunities: Farmers were asked to identify emerging areas for agri-enterprise.

Dairy farming, mushroom cultivation, and vegetable production were identified as viable agri-enterprises with strong market potential. However, infrastructural deficiencies—particularly in cold storage and transport processing units, and access to startup capital were noted as major bottlenecks — prevent farmers from scaling up. Members called for partnerships with government programs to facilitate access to storage facilities, input subsidies, and seed funding for agribusiness development.

10. Key Challenges in Agriculture: This section captured the primary pain points in the agricultural value chain.

The group outlined several pressing challenges: skyrocketing input costs, volatile market prices, and unreliable electricity supply. The cost of key inputs like DAP fertilizer has doubled, while middlemen extract disproportionate profits. Frequent power outages limit irrigation, placing crops at risk and further diminishing returns.

11. Government Scheme Engagement: Participants were queried on their awareness and access to government welfare programs.

Apart from PM-Kisan Samman Nidhi, knowledge of other schemes was negligible. Even for PM-Kisan, several eligible members reported being excluded due to documentation or enrolment errors. There was unanimous agreement on the need for structured facilitation to help farmers access existing schemes such as KCC, crop insurance, and infrastructure subsidies.

Conclusion

The FGD revealed a complex interplay of aspiration, inertia, and institutional gaps in the functioning of the FPO in Konch. While farmers recognize the potential of collective action, they continue to operate under severe informational, financial, and infrastructural constraints. The lack of training, trust, and tangible support has eroded faith in the FPO model, despite its promise.

To realize the transformative potential of FPOs, it is imperative to adopt a farmer-first approach—grounded in participatory planning, sustained capacity building, and targeted

investment in infrastructure. Bridging the divide between policy intent and field-level realities will be crucial for empowering farmers and revitalizing rural economies in Gaya and beyond.

Section 3: Response of District Agriculture Officer: Sh. Ajay Kumar Singh

This diagnostic study is informed by a Key Informant Interview (KII) conducted with **Sri Ajay Kumar Singh**, **District Agriculture Officer**, Gaya, who brings seven years of experience in agriculture and rural development. To ground the analysis in practical insight, this section presents the profile of the key informant who in administrative role provide a credible perspective on the state of FPOs in Gaya. It seeks to assess the current status, operational effectiveness, and institutional support mechanisms available to FPOs in the district.

The insights provided herein reflect both the opportunities and challenges facing these grassroots producer collectives. The study explores the evolution of FPOs in Gaya, the value chains they engage in, government and private sector interventions, as well as gaps in governance, financing, market integration, and inclusivity. The report further provides actionable recommendations to strengthen the ecosystem for FPO development and sustainability.

Role and Evolution of FPOs : This section explores the perceived role of FPOs in transforming agricultural livelihoods and traces their evolution in the district, highlighting key value chains and operational dynamics.

I. **Significance of FPOs in Enhancing Livelihoods:** FPOs are instrumental in transforming the economic prospects of small and marginal farmers in Gaya. By fostering collective action, these entities enable farmers to aggregate produce for bulk marketing, procure agricultural inputs at reduced costs, and gain access to government schemes, credit facilities, and training in advanced agricultural techniques. Moreover, value addition initiatives—such as food processing—further augment their income potential and empower farmers to transition from subsistence to enterprise-based agriculture.

II. **Evolution and Maturity of FPOs:** The proliferation of FPOs in Gaya, catalyzed by initiatives like the Central Sector Scheme for the formation of 10,000 FPOs, reflects a positive trajectory. While entities such as Gurua Agro and Bankey Dham Agro have exhibited commendable progress, many continue to grapple with operational and financial fragilities. Increased awareness and diversification into processing and digital platforms signify growing maturity, although heterogeneity in performance persists.

III. **Targeted Value Chains:** FPOs in Gaya concentrate on high-demand crops such as rice, wheat, maize, pulses, and vegetables (e.g., potatoes, onions, tomatoes), along

with oilseeds like mustard. Efforts are underway to transition from basic aggregation to value chain development through processing and packaging, aligning production with market demand.

Government Support and Institutional Engagement: An overview of institutional interventions, this section outlines the types of support extended by government departments and evaluates the effectiveness of various schemes and collaborative mechanisms.

I. **Capacity Building and Technical Support:** The Agriculture Department facilitates capacity enhancement through training modules on governance, record keeping, business planning, and advanced agronomy. Support also includes assistance in securing input licenses and linking FPOs with agro-dealers.

II. **Market Linkages and Infrastructure:** FPOs benefit from access to institutional buyers and digital platforms (e.g., e-NAM), with guidance for participation in government procurement programs. Subsidies for infrastructure like storage and small-scale processing units are provided, though constrained by fiscal limitations.

III. **Efficacy of Government Schemes:** Programs spearheaded by SFAC, NABARD, RKVY, and NRLM have been pivotal in establishing and sustaining FPOs. However, bureaucratic complexities, limited access to credit, and lack of sustained follow-up training hinder their long-term viability.

Challenges and Barriers: Despite progress, FPOs continue to face structural and operational constraints. This section identifies the key challenges impeding their performance and sustainability across governance, finance, and market access.

I. **Governance and Participation:** A deficit in professional leadership and low member engagement hampers operational efficiency. With most FPOs comprising fewer than 100 members, collective bargaining power remains limited.

II. **Financial Constraints:** Inadequate access to affordable credit forces dependence on informal borrowing. The high cost of compliance and limited collateral further restrict institutional financing.

III. **Market Access and Infrastructure:** Lack of robust market linkages and post-harvest infrastructure leads to underutilization of production potential and significant post-harvest losses.

IV. **Regulatory Compliance:** Cumbersome registration processes and expensive statutory obligations deter many FPOs. Ambiguity in regulatory guidelines exacerbates coordination challenges.

Performance and Sustainability: To assess impact and resilience, this section reviews performance benchmarks of FPOs in the district, highlighting both successful practices and factors contributing to stagnation or dormancy.

I. **Success Stories and Best Practices:** Though specific success cases are limited, certain FPOs have demonstrated effective practices such as direct marketing, collective input supply, and digital engagement. These should be documented and disseminated for wider adoption.

II. **Dormancy and Failures:** FPOs that have become defunct typically suffered from inadequate scale, poor financial management, and ineffective leadership.

III. **Monitoring Mechanisms:** Performance tracking is currently dependent on self-reporting and sporadic field visits. A digitized, real-time monitoring system could greatly enhance accountability and impact assessment.

Gender and Social Inclusion: Inclusivity remains a cornerstone of equitable development. This section evaluates the participation of women and marginalized groups in FPO structures and benefits.

I. **Participation of Women and SC/ST Groups:** Women-led and SC/ST-led FPOs, though present, face systemic barriers including low literacy, restricted mobility, and minimal access to finance. Greater institutional support is required to foster inclusive leadership.

II. **Inclusivity in Governance and Benefits:** While membership is gradually becoming more diverse, leadership remains dominated by more privileged groups. Efforts must be made to democratize benefit-sharing and representation.

Strategic Recommendations: Drawing from the findings, this section presents strategic recommendations aimed at strengthening FPOs through policy reforms, institutional capacity building, and cross-sector partnerships.

I. **Institutional Reforms and Capacity Development:** Simplify registration and compliance procedures, introduce flexible financing schemes, and institute ongoing leadership training for FPOs.

II. **Private Sector and CSR Engagement:** Private enterprises and CSR initiatives can play a catalytic role through direct procurement, infrastructure investment, capacity building, and technological support.

III. **Strengthening Government Support Mechanisms:** Agriculture officers require enhanced resources, dedicated manpower, digital tools, and clear policy directives to offer effective, sustained support.

Conclusion

The trajectory of FPO in Gaya reflects both promise and peril. It represents a promising yet under-realized potential for transforming the rural agrarian economy. While the formation and initial operations of many FPOs have been supported through government schemes and departmental coordination, long-term sustainability remains a concern due to structural and operational constraints. Challenges such as limited leadership capacity, inadequate access to working capital, low digital adoption, and restricted participation of women and marginalized communities persist. Strategic investment in capacity, infrastructure, and inclusive governance can unleash their transformative potential.

To harness the full potential of FPOs, a multi-stakeholder approach is essential—one that combines policy reform, institutional strengthening, private sector engagement, and community empowerment. Continuous capacity building, simplified regulatory frameworks, and inclusive governance models will be critical to enable FPOs in Gaya to thrive as viable agribusiness entities. The insights from this diagnostic study offer a roadmap for strategic interventions that can significantly uplift the livelihoods of smallholder farmers in the region.

Chapter 4

Recommendations and Way Forward

1. Strengthen Member Awareness and Participation

- Community Mobilization: Implement grassroots-level awareness campaigns to educate farmers on the benefits of FPO membership, especially in local dialects.
- Inclusive Mobilization: Actively encourage women, marginal farmers, and tenant cultivators to participate in FPOs, addressing the current lack of female representation.
- Transparent Onboarding: Move away from bureaucratic, top-down registration; ensure participatory, informed consent of members.

2. Capacity Building and Skill Development

- Regular Training Programs: Conduct localized training on:
- Financial literacy
- Agri-business planning
- Market linkages
- Post-harvest management
- Farmer-Centric Curriculum: Tailor training based on local cropping patterns, such as paddy, wheat, pulses, and vegetables.
- Technical Assistance: Partner with Krishi Vigyan Kendras (KVKs), NGOs, and agri-universities to deliver capacity-building modules.

3. Improve Access to Finance

- Credit Facilitation Cells: Establish FPO credit desks to help members apply for KCCs, crop insurance, and institutional loans.
- Leverage SHGs: Integrate SHG-based credit channels to expand microcredit access, currently underutilized in Konch.
- Subsidized Loan Linkages: Facilitate low-interest loans for agri-processing and mechanization through cooperative banks and NABARD schemes.

4. Infrastructure and Input Support

- Custom Hiring Centers (CHCs): Provide shared access to tractors, seeders, and harvesters—tools that are currently scarce.
- Storage & Processing Units: Invest in warehouses and small-scale processing units for crops like mustard, pulses, and vegetables.
- Soil & Water Testing Labs: Introduce mobile testing services and promote the Soil Health Card scheme (currently unused).

5. Promote Integrated Farming and Livelihood Diversification

- Integrated Models: Combine crop production with dairy, poultry, and horticulture to stabilize income and reduce risk.

- Value Addition Opportunities: Facilitate training and subsidies for food processing, especially for mustard oil, dairy, and vegetables.
- Support Zaid Crops: Promote vegetable cultivation and fodder production during the Zaid season through subsidized seeds and inputs.

6. Strengthen Market Linkages

- Direct Marketing: Support FPOs to bypass middlemen and link directly with:
- Institutional buyers
- E-NAM platform (currently zero usage)
- Government procurement programs
- Transport Infrastructure: Promote collective transport models or leasing of vehicles to reduce reliance on expensive hired autos.

7. Governance and Institutional Development

- Professional Management: Employ qualified CEOs and accountants to manage FPO operations efficiently.
- Regular Monitoring: Use digital tools for real-time data collection and monitoring of FPO performance.
- Strengthen Governance: Promote member participation in board elections and build democratic governance systems.

8. Policy and Institutional Convergence

- Coordination Committee: Form a district-level FPO promotion committee including KVKs, Dept. of Agriculture, NABARD, NGOs, and b
- Scheme Synergy: Ensure FPOs are aware of and benefit from multiple schemes like PM-KISAN, PMFME, and RKVY.

9. Enhance Gender and Social Inclusion

- Women's FPOs: Promote and support women-led producer groups; ensure training is gender-sensiti
- Social Equity: Ensure SC/ST and landless farmers receive targeted support through land leasing models or collective farming.

10. Strengthen Digital and Advisory Services

- Digital Literacy: Introduce mobile apps for advisory, price tracking, and weather alerts.
- Agri-Advisory Cells: Establish district-level helplines or WhatsApp groups for real-time farming and marketing guidance.

These recommendations, if systematically implemented, can significantly enhance the sustainability, profitability, and inclusivity of FPOs in Gaya district, with Konch block as a model pilot. If you'd like, I can help design an action plan or policy brief based on these points.

SWOT ANALYSIS